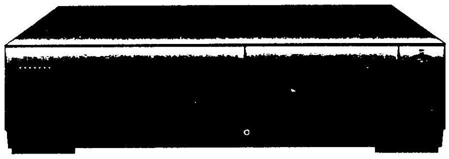
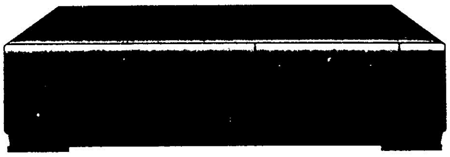
Video Cassette Recorder

VR502/01/02/05/13/16

Service
Service
Service

VR702/01/08/13
VR703/02/05/16
7SB02/03/06/08/09/10/11/16





Service Manual

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Servicing of SMD's
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Block diagram
Wiring diagram

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4 Cabinet exploded view
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Survey of types:

VR502	FM-Audio, Testpicture
VR502/05	FM-Audio, On Screen Display
VR702	Video LP, FM-Audio, On Screen Display
VR703	Video LP, FM-Audio, VPT Teletextprogramming
7SB02	Video LP, FM-Audio, On Screen Display

Survey of versions:

/01	PAL B/G, German Stereo
/02	PAL-Secam B/G, VPS, German Stereo
/05	PALI, NICAM
/08	PAL B/G, German Stereo
/13	PAL B/G, German Stereo plus NICAM
/16	PAL B/G, NICAM

Survey of tapedecks

VR502 : JED 2/2 (2 Video+2 FM-Audio Heads)
VR702, VR703,
7SB02 : JED 4/2 (4 Video+2 FM-Audio Heads)

Tape deck documentation

G-Tapedeck	4822 726 14533

Survey of remote controls

VR502, VR702, VR703	: RT204/101	4822 218 30568
7SB02	: RT204/201	4822 218 30571

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviçio

Subject to modification

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GB CS 31 809

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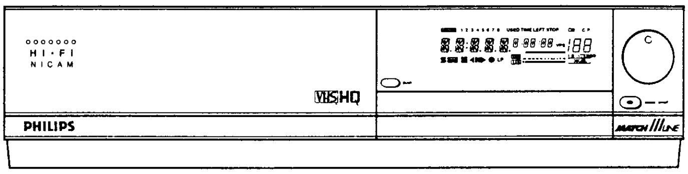
Video Cassette Recorder

VR712/05

VR713/05

14601

Service
Service
Service



Service Manual

For technical data reference is made to the service manual VR502, VR703 (4822 726 14871)
The present manual only states the **differences**.

Survey of sets and CBAs

	VR712/05	VR713/05
Power supply		
JSM-40	•	•
Head Amplifier		
HV 4/2	•	•
Family board		
JFBU7/05	•	•
Main erase oscillator		
MEO	•	•
I/O-Board, FM-Audio		
JAF7/05 Pal I, Nicam	•	•
Operating Panel		
JDC7	•	•
Control board		
JCOOSD	•	
KCO73P		•
Tape Deck		
KED 4/2	•	•

Safety regulationes require that the set be restored to its original condition and that parts which are identical with those specified be used.

Survey of types

VR712/05: Pal I, NICAM, Video LP, FM-Audio, On Screen Display
VR713/05: Pal I, NICAM, Video LP, FM-Audio, VPT Teletextprogramming, PDC

Survey of tapedecks

VR712,VR713: KED 4/2 (4 Video+2 FM-Audio Heads)

Tape deck documentation

G-Tapedeck: 4822 726 14533

Survey of remote controls

VR712,VR713: RT214/111 4822 218 30605

Differences in respect to the basic manual:

Front panel parts (page 4-1,4-4):

Item	Description	VR712	VR713
13	Lift flap	4822 443 63514	4822 443 63508
20	Front panel	4822 443 41101	4822 443 41106
20/3	Switchplate	4822 466 92935	4822 466 93015

Electrical differences for VR713:

Control board KCO73P (page 3-31, 4-27)

Item	Description	VR713
7751	EPROM PDC	4822 209 30693
7753	CMOS RAM	4822 209 63983

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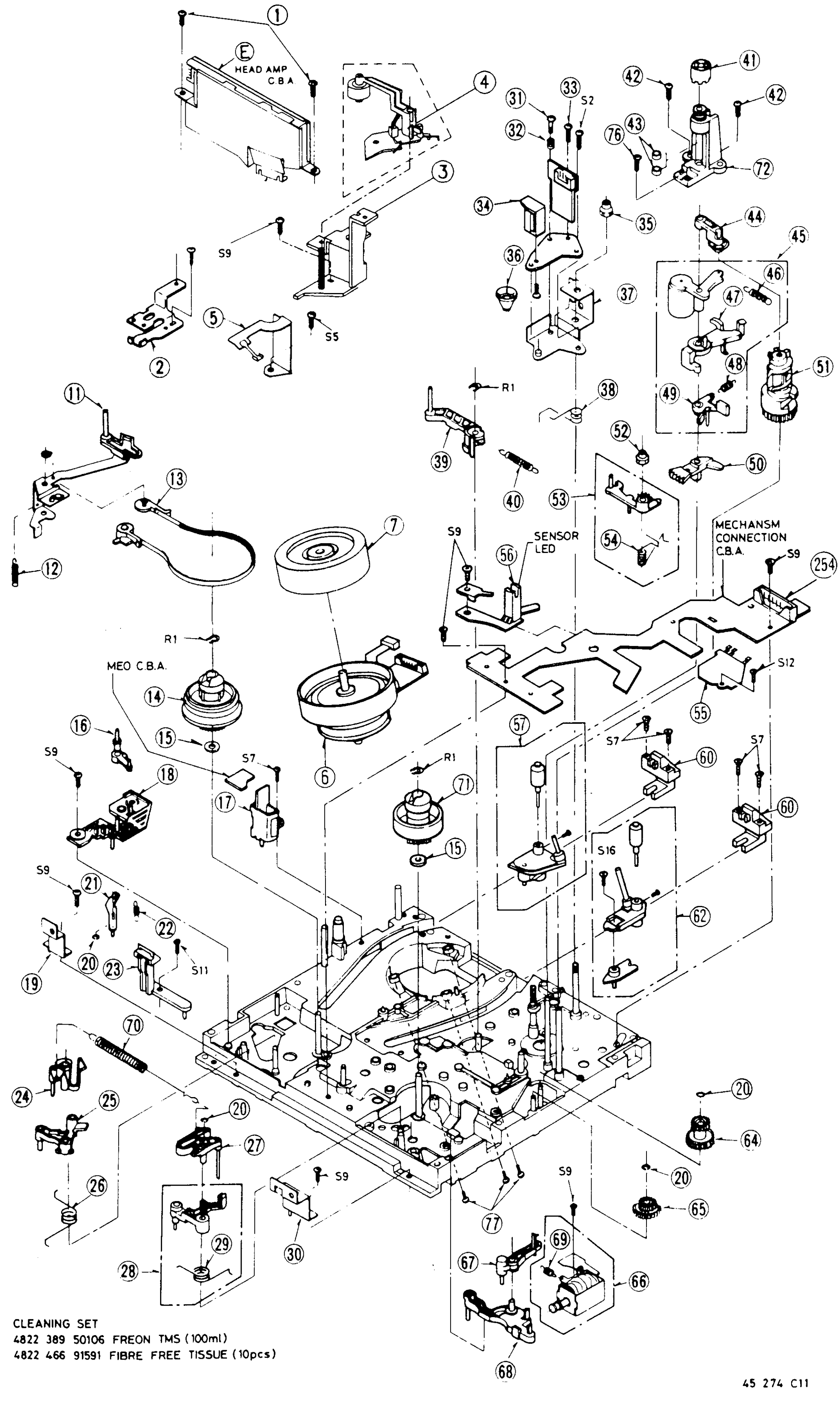
Exploded view (top view) of the deck with cleaning roller

3	changed part	4822 403 53565	mounting angle (right)
4	additional part	4822 403 70433	cleaning roller


①
Ⓔ
HEAD AMP C.B.A
④
③
②
⑤
S9
S5
㉛
㉜
㉝
S2
㊴
㊱
㉟
㊲
㊳
R1
㊵
㊶
㊷
㊸
(76)
(72)
㊹
㊺
㊻
㊼
㊽
㊾
(51)
㊿
(52)
(53)
(54)
⑪
⑫
⑬
⑦
R1
MEO C.B.A.
⑭
⑮
⑥
⑯
⑰
⑱
S7
S9
SENSOR LED
(56)
MECHANSM CONNECTION C.B.A.
(254)
(55)
S12
(57)
(60)
(71)
S16
(62)
⑲
⑳
㉑
㉒
㉓
S11
㉔
㉕
㉖
㉗
㉘
㉙
㉚
(70)
(64)
(65)
(66)
(67)
(68)
(69)
(77)

CLEANING SET
4822 389 50106 FREON TMS (100ml)
4822 466 91591 FIBRE FREE TISSUE (10pcs)

45 274 C11

SERVICE INFORMATION

DE GRAAF WHSHP7

FINLANDIA VHSHP7

VR702

For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk

TECHNICAL SUPPORT
COMMUNICATIONS & TRAINING SERVICES
CTS
EXCELLENCE THROUGH PEOPLE

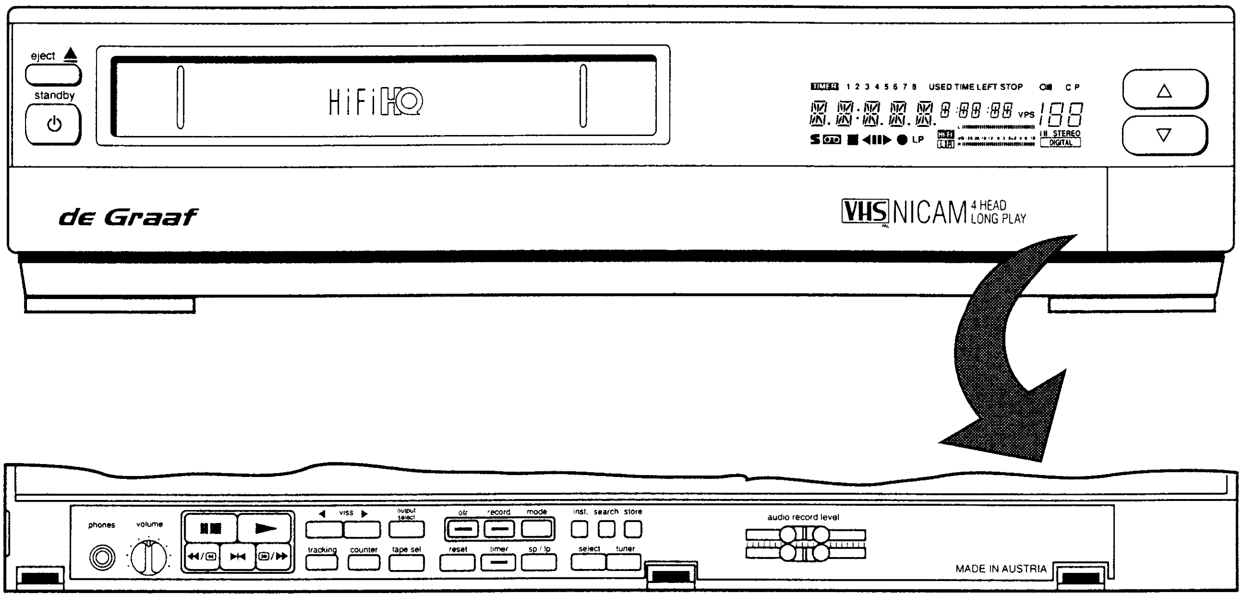
Stock category	Nearest equivalent model
DE GRAAF	
WHSHP7	VR703/05 Nicam LCD-RC
FINLANDIA	
VHSHP7	VR703/05 Nicam LCD-RC

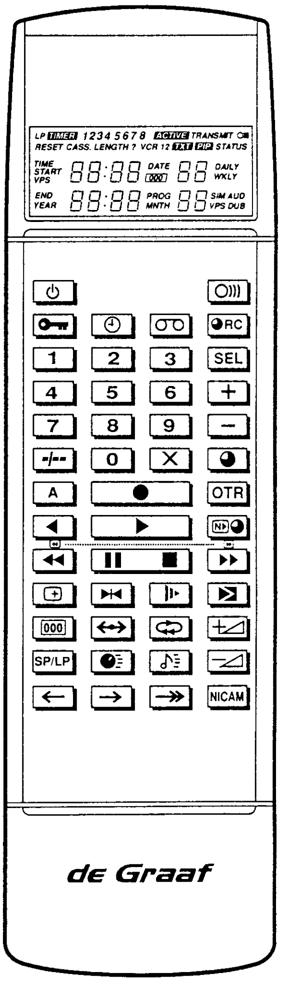
Survey of CBA's VHSHP7/WHSHP7	
Family board	JFBU7/05
Headamplifier	HV4/2
Power supply	JSM40
Operating panel	JDCO-C
Control panel	JCOTPC
FM-Audio, I/O	JAF7/05

Type	Tapedeck	Remote Control	Dir. for use
VHSHP7	JED4/2	8622 662 05762	3103 166 04590
WHSHP7	JED4/2	8622 662 05772	3103 166 04600

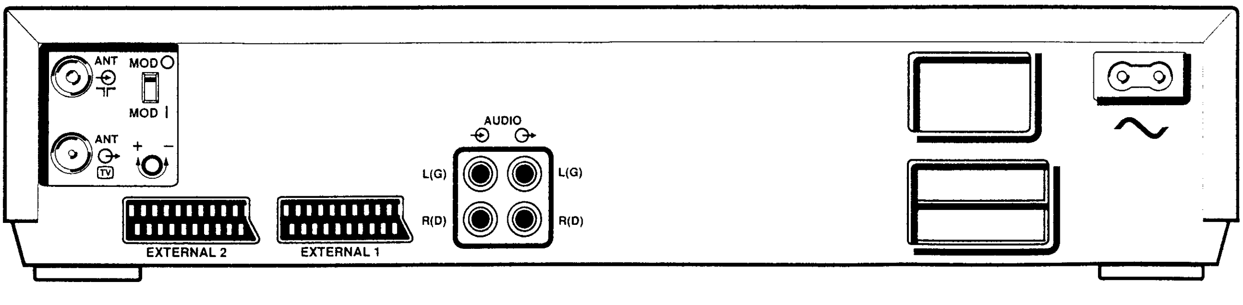
For technical data reference is made to the service manual of VR703/05.
The present manual only states the differences.

Safety regulations require that the set be restored to its original conditions and that parts which are identical with those specified be used.


eject
standby
HiFi HQ
TIMER 1 2 3 4 5 6 7 8 USED TIME LEFT STOP C P
VPS
STEREO
DIGITAL
LP
de Graaf
VHS NICAM 4 HEAD LONG PLAY
phones
volume
vps
output select
otr
record
mode
inst. search
store
tracking
counter
tape sel
reset
timer
sp / lp
select
tuner
audio record level
MADE IN AUSTRIA


LP TIMER 1234 5678 ACTIVE TRANSMIT
RESET CASS. LENGTH ? VCR 12 TXT PIP STATUS
TIME START VPS
DATE
DAILY WKLY
END YEAR
PROG MNTH
SIM AUD VPS DUB
RC
1
2
3
SEL
4
5
6
+
7
8
9
−
-/--
0
A
OTR
000
SP/LP
NICAM
de Graaf

Remote Control
RT205/772
8622 662 05772


ANT
MOD
MOD I
ANT
TV
+ −
AUDIO
L(G)
R(D)
L(G)
R(D)
EXTERNAL 2
EXTERNAL 1

CONTROLS AND CONNECTIONS

Symbols on the video recorder	Symbols on the remote control	Function
standby ⏻	⏻	Stand by
eject ▲		Video Cassette eject
tuner ☐		Tuner Mode
record ☐	●	Record (push buttons A and ● simultaneously on the remote control).
inst ☐		Installation Procedure
search ☐		Search for a TV Station
store ☐		Store a TV Station
select ☐	SEL	Function Select
timer ☐	◕	Setting up a Timer Block
▽	−	Down
△	+	Up
◀◀/⊙	◀◀	Rewind/Picture Search Backwards
▶◀	▶◀	Still Picture and Frame Advance
⊙/▶▶	▶▶	Wind/Picture Search Forwards
❚❚■	❚❚ ■	Pause / Stop
▶	▶	Play
	O)))	Transmit
	⚷	Child Lock
	◷	Set Clock on the Remote Control
tape sel ☐	⊙⊙	Tape Length Selector
	●RC	Timer Block Setting on Remote Control
	0 - 9	Digit Buttons
	-/--	Single or Double Digit Entry
reset ☐	✕	Reset/Cancel
otr ☐	OTR	One Touch Recording (push buttons **A** and **OTR** simultaneously on the remote Control)
sp lp ☐	SP/LP	Tape speed selector (Standard Play/Long Play).
sp lp ☐	SP/LP	Audio tape speed selector (Standard Play/Long Play).
rec mode ☐	●:	Recording Mode Selector
output select ☐	♪:	Stereo/Mono/Language 1-2/Audio-Mix selector
volume ◎		Headphone Volume Control
phones ◎		Headphone Socket
audio record level		Audio Recording Level
◀ ☐	←	Select Previous Index Marker
▶ ☐	→	Select Next Index Marke
	→»	Searching For Index Mar
	⟲	Endless Play
	NICAM	NICAM on/off
	◀	Play Reverse
	N▶	Fast Motion Play
	▏▶	Slow Motion Play
	⊡	No Function
tracking ☐	▶▶	Auto Tracking
counter ☐	000	Selector for Time Use, Ti
	↔	GOTO - Searching for a
	A	Used in conjunction with

Rear of the video recorder:

⅂Γ	Aerial Input Socket
TV	Aerial Output Socket
+⊘−	Channel Output Control
EXT 1	21 Pin Scart Connection
EXT 2	21 Pin Scart Connection
∿	Mains Socket Input
MOD 0 MOD 1	Modulator switch (on = I
AUDIO R (D) ⊸	Audio input Right socket
AUDIO L (G) ⊸	Audio input Left socket
AUDIO R (D) ⊶	Audio output Right socke
AUDIO L (G) ⊶	Audio output Left socket

The following functions may also be used with certain televisions.

▶▶	Personal preference butto
−◢	TV Volume Down
+◢	TV Volume Up

kers (Intro-scan)

me Left and Tape Counter

Tape Position

Record and OTR

Socket 1

Socket 2

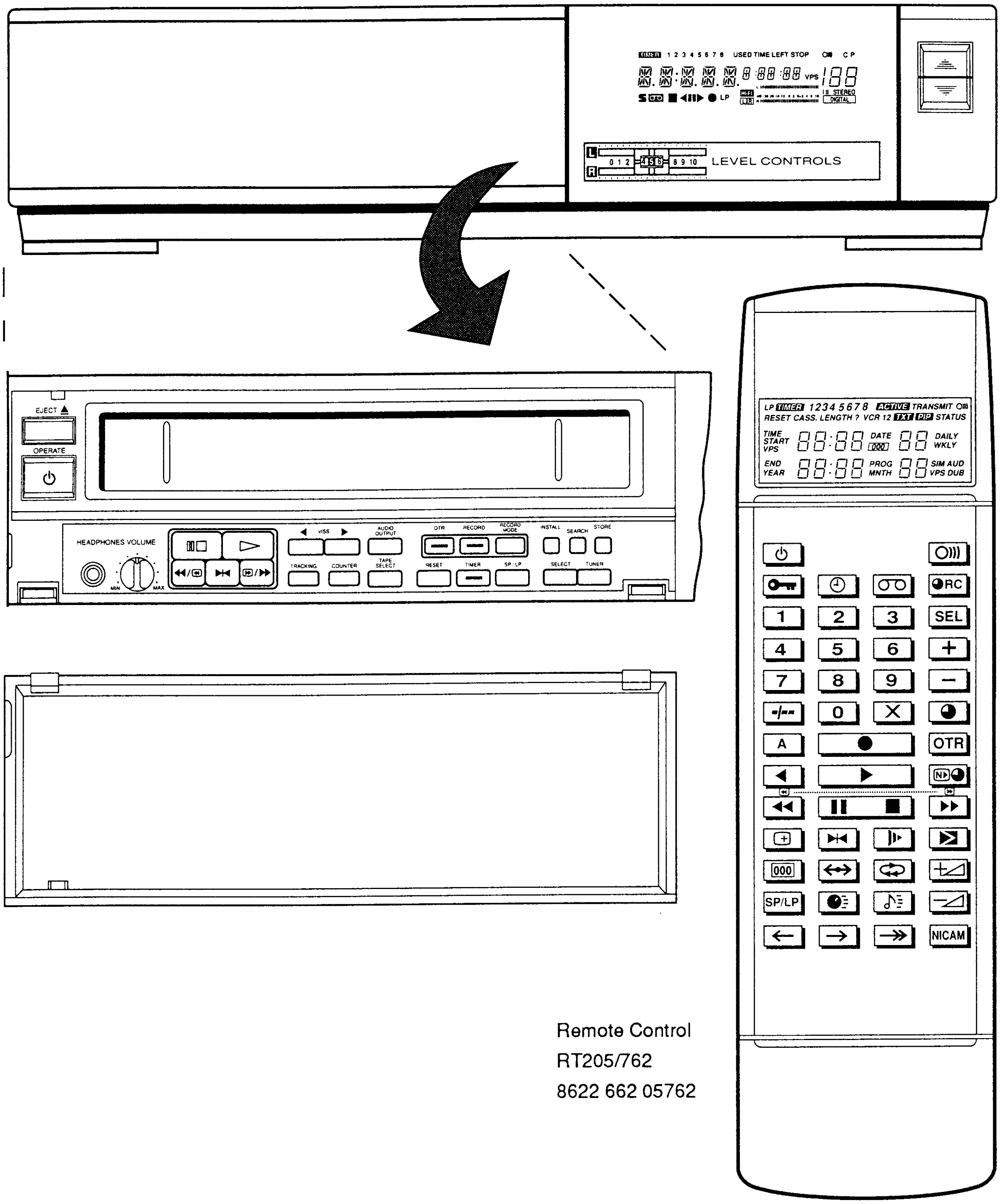
)

n

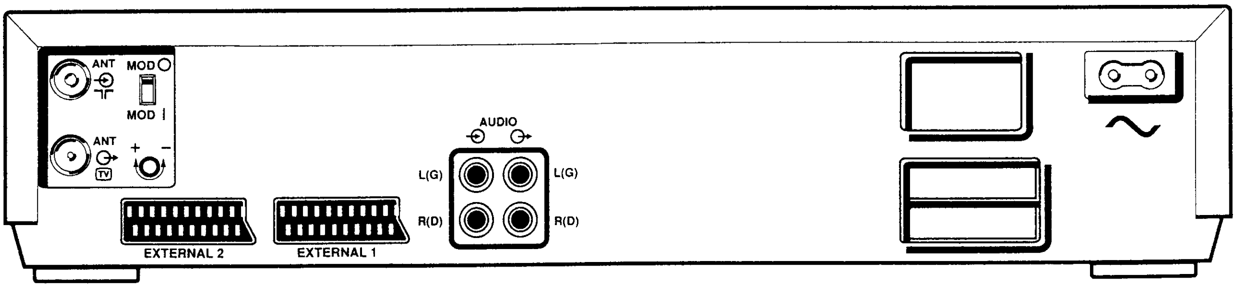
HANDSET SYMBOLS

⏻	operate off (standby)
○)))	transmit
⚷	childlock
◷	clock setting
○○	tape length selector
◐RC	timed recording via the HANDSET display
SEL	function select
+	up
–	down
–/--	one/two digit entry
X	reset
◕	timed recording via the VCR display
● A	record (press simultaneously)
A OTR	one touch recording (press simultaneously)
◀	play reverse
▶	play
[N▶]	fast motion
◀◀	rewind (visual search)
❚❚ ■	pause/stop
▶▶	wind (visual search)
▭	no function
▶❘◀	still/superslow motion
❘▸	slow motion
▶▌	auto-tracking
[000]	tape counter selector
↔	tape position search
⟲	endless play
±	no function
=	no function
SP/LP	standard play/long play
○≡	record mode
♪≡	audio output
←	index search (rewind)
→	index search (wind)
↠	intro scan
NICAM	nicam digital stereo sound selector

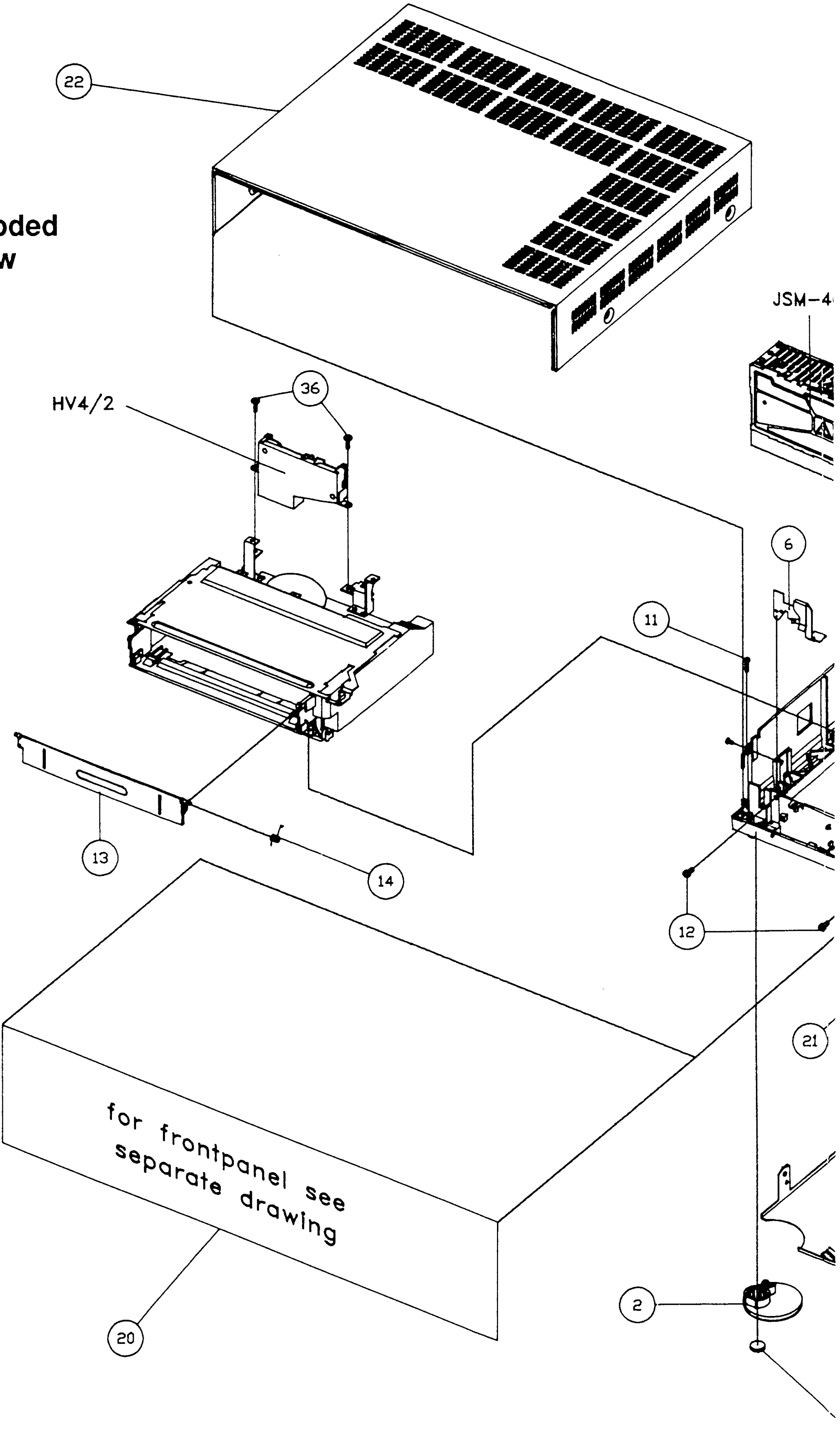
VHSHP7

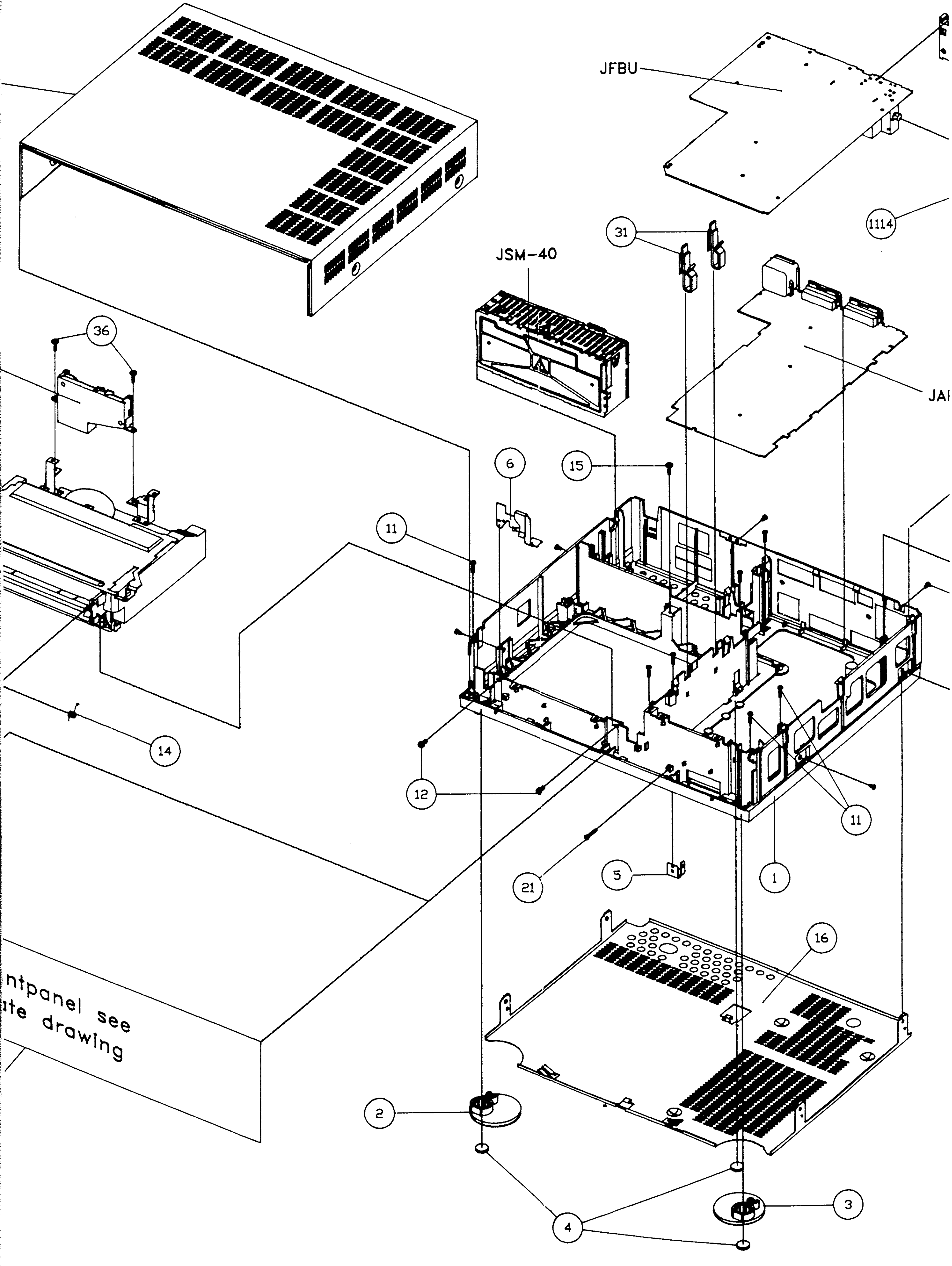

TIMER 1 2 3 4 5 6 7 8 USED TIME LEFT STOP C P
VPS
STEREO
DIGITAL
LP
HI-FI
L
R
0 1 2 4 5 6 8 9 10
LEVEL CONTROLS
EJECT ▲
OPERATE
HEADPHONES VOLUME
MIN
MAX
VISS
AUDIO OUTPUT
OTR
RECORD
RECORD MODE
INSTALL
SEARCH
STORE
TRACKING
COUNTER
TAPE SELECT
RESET
TIMER
SP/LP
SELECT
TUNER
LP TIMER 12345678 ACTIVE TRANSMIT
RESET CASS. LENGTH ? VCR 12 TXT PIP STATUS
TIME START VPS
DATE
DAILY WKLY
END YEAR
PROG MNTH
SIM AUD VPS DUB
RC
1
2
3
SEL
4
5
6
+
7
8
9
−
-/--
0
X
A
OTR
000
SP/LP
NICAM

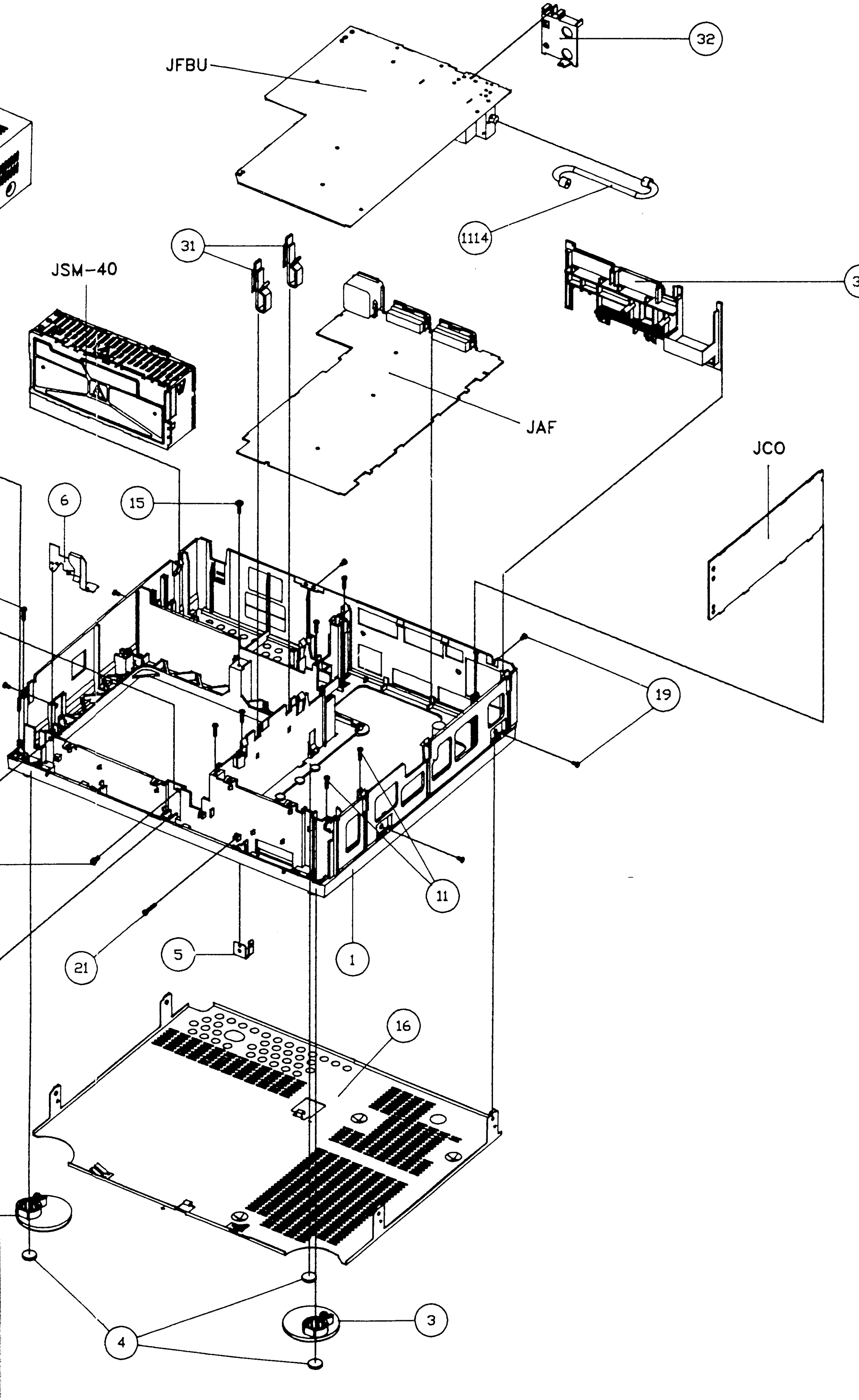
Remote Control
RT205/762
8622 662 05762


ANT
MOD
MOD I
ANT
TV
+
−
AUDIO
L(G)
R(D)
L(G)
R(D)
EXTERNAL 2
EXTERNAL 1

Exploded view

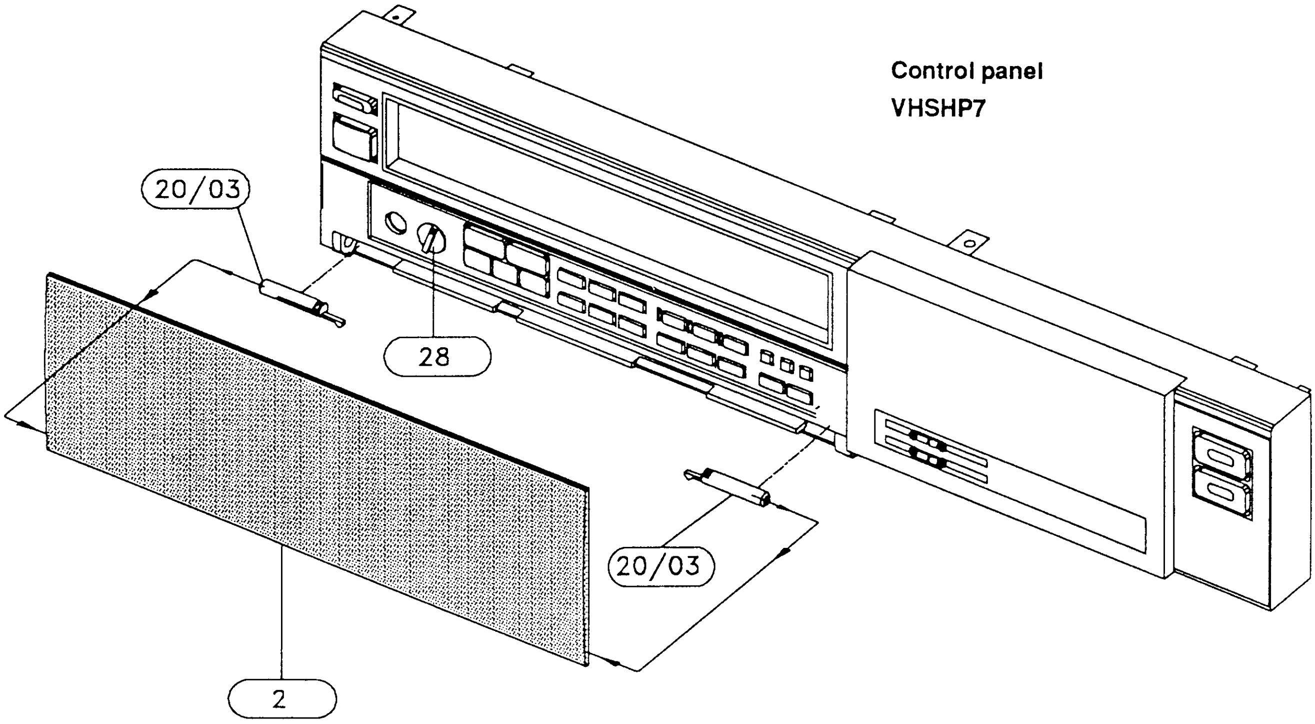

22
36
HV4/2
JSM-4
6
11
13
14
12
21
for frontpanel see separate drawing
20
2


JFBU
JSM-40
JA
ntpanel see
ate drawing


JFBU
JSM-40
JAF
JCO

STOCKLIST CABINET PARTS

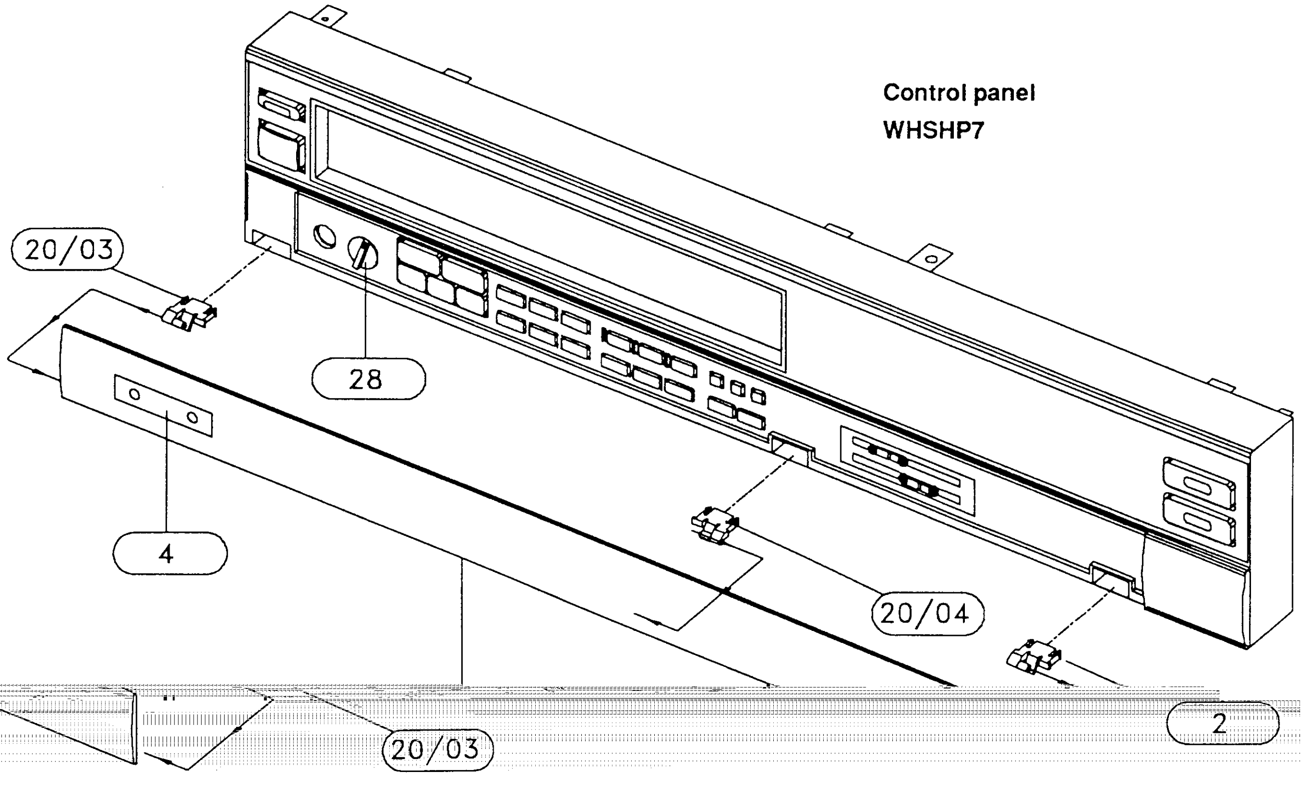
	VHSHP7	WHSHP7	
1	4822 464 50812	4822 464 50812	Frame
2	4822 462 41736	3103 104 12480	Foot left
3	4822 462 41737	3103 104 12470	Foot right
4	4822 462 41289	4822 462 41289	Foot
5	4822 402 61354	4822 402 61354	Bracket
11	4822 502 11838	4822 502 11838	Screw
12	4822 502 11697	4822 502 11697	Screw M4*8
13	3103 178 00350	3103 178 00130	Lift flap
14	4822 492 52044	4822 492 52044	Spring
15	4822 502 30546	4822 502 30546	Screw 4N*3/4
16	4822 443 51204	4822 443 51204	Bottom
19	4822 502 13173	4822 502 13173	Screw
20	3103 138 56980	3103 109 06640	Control panel
21	4822 502 13668	4822 502 13668	Screw
22	4822 443 63141	4822 443 63141	Topcover
31	4822 401 11377	4822 401 11377	Cable clamp
32	4822 443 63171	4822 443 63171	Cover
33	4822 402 61355	4822 402 61355	Support
36	4822 502 13307	4822 502 13307	Screw
1114	4822 321 60916	4822 321 60916	Coaxcable
Miscellaneous			
	4822 321 10635	4822 321 10635	Mains cord
	4822 321 23415	4822 321 23415	Antenna cable
	4822 321 22369	4822 321 22369	Chinch cable
	8622 662 05762	8622 662 05772	Remote control


20/03
28
20/03
2

Control panel
VHSHP7

VHSHP7		**Control panel**
2	3103 109 06680	Front flap
20/3	3103 188 08560	Bolt
28	4822 413 31571	Potmeterknob

WHSHP7		**Control panel**
2	3103 109 06560	Front flap
20/03	4822 417 10844	Hinge left
20/04	4822 417 10839	Hinge right
28	4822 413 31571	Potmeterknob


20/03
28
4
20/04
20/03
2

Control panel
WHSHP7

Survey of sets and PCBs

	VR502 /01	/02	/05	/13	/16	VR702 /01	/08	/13	VR703 /02	/05	/16	7SB02 /03	/06	/08	/09	/10	/11	/16
Power Supply																		
JSM-40 Power Supply	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Head Amplifier																		
HV 4/2 Head Amplifier	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Family Board																		
JFBU5/01 Pal B/G	X			X	X													
JFBU5/02 Pal B/G; VPS		X																
JFBU5/05 Pal I			X															
JFBU7/01 Pal B/G, LP						X	X	X			X							X
JFBU7/02 Pal B/G, VPS, LP									X			X	X	X	X	X	X	
JFBU7/05 Pal I, LP										X								
Main Erase Oscillator																		
MEO	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
I/O-Board, FM-Audio																		
JAF5/02 Pal B/G German Stereo	X	X																
JAF5/05 Pal I, NICAM			X															
JAF5/13 Pal B/G, German Stereo+NICAM				X														
JAF5/16 Pal B/G, NICAM					X													
JAF7/02 Pal B/G, German Stereo						X	X		X			X	X	X	X	X	X	
JAF7/05 Pal I, NICAM										X								
JAF7/13 Pal B/G, German Stereo+NICAM								X										
JAF7/16 Pal B/G, NICAM											X							X
Operating Panel																		
JDC5 Operating Panel	X	X	X	X	X													
JDC7 Operating Panel						X	X	X	X	X	X							
JDCO-A Operating Panel												X	X	X	X	X	X	X
Control Board																		
JCO/TPC Testpicture	X	X		X	X													
JCO/OSD			X			X	X	X				X	X	X	X	X	X	X

TECHNICAL DATA	TECHNISCHE DATEN	CARACTERISTIQUES	
Mains voltage	Netzspannung	Tension secteur	220 - 240 V
Mains frequency	Netzfrequenz	Fréquence	47 - 63 Hz
Power consumption	Leistungsaufnahme	Puissance absorbe	19 - 27 W
Power consumption	Leistungsaufnahme	Puissance absorbe	12 - 16 W (stand by)
Ambient temperature	Raumtemperatur	Tempèrature ambiante	+10° - +35°
Relative humidity	Relative Luftfeuchte	Humiditè relative	20 - 80%
Dimensions	Abmessungen	Encombrement	420 x 101 x 381 mm
Weight	Gewicht	Poids	± 6,5 kg
Fast forward/rewind time	Vor-/Rückspulzeit	Temps (re-)bobinage	max. 270s (E180 cass.)
Position of use	Betriebslage	Position d'emploi	horizontally, max 15°
Video-resolution	Video-Auflösung	Puissance absorbèe	>240 lines
Audio	Audio	Audio	SP 80Hz - 10kHz (<8dB) LP 80Hz - 5kHz (<8dB)
Audio FM	Audio FM	Audio FM	20Hz - 20kHz (<3dB)

TECHNISCHE GEGEVENS	DATOS TECNICOS	DATI TECNICI	
Netspanning	Tensión de red	Tensione di alimentazione	220 - 240 V
Netfrequentie	Frecuencia de red	Frequenza di rete	47 - 63 Hz
Opgenomen vermogen	Consuma de potencia	Potenza assorbita	19 - 27 W
Opgenomen vermogen	Consuma de potencia	Potenza assorbita	12 - 16 W (stand by)
Omgevingstemperatuur	Temperatura ambiente	Temperatura ambiente	+10 °- +35°
Relatieve vochtigheid	Humedad relativa	Umiditá relativa	20 - 80%
Afmetingen	Dimensiones	Dimensioni	420 x 101 x 381 mm
Gewicht	Peso	Peso	± 6,5 kg
Vooruit/terugspoeltijd	tiempo de (re-)bobinado	Tempo di (ri-)avvolgimento	max. 270s (E180 cass.)
Gebruikspositie	Posición de uso	Posizione di funzionamento	horizontally, max 15°
Oplossend vermogen	Resolución video	Risoluzione video	>240 lines
Audio	Audio	Audio	SP 80Hz - 10kHz (<8dB) LP 80Hz - 5kHz (<8dB)
Audio FM	Audio FM	Audio FM	20Hz - 20kHz (<3dB)

SAFETY INSTRUCTIONS

- Safety regulations demand that the set be restored to its original condition and that components identical with the original types be used.
  Safety components are marked by the symbol ⚠
- All ICs and many other semi-conductors are susceptible to electrostatic discharges(ESD). Careless handling during repair may reduce life drastically. When repairing, make sure that you are conneted with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools on the same potential.
- A set to be repaired should always be connected to the mains via a suitable isolating transformer.
- Never replace any modules or any other parts while the set is switched on.
- Use plastic instead of metal alignment tools. This in order to prelude short-circuit or to prevent a specific circuit from being rendered unstable.

REMARKS

- The direct voltages and oscillograms ought to be measured relative to the set mass.
- The direct voltages and oscillograms mentioned in the diagrams ought to be measured with a colour bar signal and the picture carrier at 503.25 MHz (C25).
- The oscillograms and direct voltages have been measured in RECORD or PLAY mode.
- The semiconductors, which are mentioned in the circuit diagram and in the parts lists, are fully exchangeable per position with the semiconductors in the set, irrespective of the type designation of these semiconductors.

SICHERHEITSHINWEISE

- Die Sicherheitsvorschriften erfordern es, dass sich das Gerät nach der Reparatur in seinem originalen Zustand befindet und dass die zur Reparatur benutzten Ersatzteile mit den Original-Ersatzteilen identisch sind.
  Sicherheits-Bauteile sind mit der Markierung versehen ⚠
- Alle IC's und Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD). Unvorschriftmässige Behandlung von Halbleitern im Reparaturfall, kann zur Zerstörung dieser Bauteile oder zu einer drastischen Reduzierung der Lebensdauer führen. Sorgen Sie dafür, dass Sie sich im Reparaturfall über ein Armband mit Widerstand auf dem gleichen Potential, wie die Masse des Gerätes befinden. Alle Bauteile, Werkzeuge und Hilfsmittel sind auf das gleiche Potential zu legen.
- Ein zu reparierendes Gerät ist immer über einen Trenntransformator an die Netzspannung anzuschliessen.
- Bei eingeschaltetem Gerät dürfen keine Module oder sonstige Einzelteile ausgetauscht werden.
- Zum Abgleich sind ausschliesslich Kunststoffwerkzeuge zu benutzen (keine Metallwerkzeuge verwenden). Dadurch wird vermieden, dass ein Kurzschluss entstehen kann oder eine-Schaltung instabil wird.

ANMERKUNGEN

- Die Gleichspannung und Oszillogramme sind gegen Gerätemasse zu messen.
- Die Gleichspannungen und Oszillogramme angeführt in den Schaltbildern sollen unter folgenden Bedingungen gemessen werden: Farbbalkensignal, Bildträger auf 503.25 MHz (C25)
- Die Oszillogramme und Gleichspannungen sind in RECORD oder PLAY gemessen.
- Die in den Stücklisten aufgeführten Bauteile sind positionsweise voll auswechselbar gegen die Bauteile in dem Gerät, ungeachtet der etwaigen Typenbezeichnungen.

AVERTISSEMENTS

- Les normes de sécurité exigent qu'aprés réparation l'appareil soit remis dans son état d'origine et que soient utilisées les piéces de rechange identiques à celles spécifiées.
  Les composants de sécurité sont marqués ⚠
- Tout les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharger statiques (ESD). Leur longévité pourrait étre considérablement écourté par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations s'assurer de bien étre relié au méme potential que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.
- Toujours alimenter un appareil à réparer à travers un transfo d'isolement.
- Ne jamais remplacer les modules ni d'autres composants quand l'appareil est sous tension.
- Pour l'ajustage, utiliser des outils en plastique au lieu d'instruments métalliques. Ceci afin d'éviter les court-circuits et exclure l'instabilité dans certains circuits.

OBSERVATIONS

- La mésure des tensions continues et des oscillogrammes doit se faire par rapport à la terre de l'appareil.
- La mésure des tensions continues et des oscillogrammes figurant sur le schéma doit se faire dans un signal de barre couleur porteuse image sur 503.25 MHz (C25).
- Les oscillogrammes et tension sont mésurées en mode RECORD ou PLAY.
- Les semi-conducteurs indiqués dans le schéma de principe et à la liste des compostants, sont interchangeables par repère sur ce chassis avec les semi-conducteurs de l'appareil quelle que soit la désignation de type donnée sur ces semi-conducteurs.

VEILIGHEIDSINSTRUCTIES

- Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, indentiek aan de oorspronkelijke, worden toegepast.
  De veiligheidsonderdelen zijn aangeduid met het symbool ⚠
- Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor, dat U tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.
- Sluit een apparaat dat gerepareerd wordt altijd via een scheidingstransformator aan op de netspanning.
- Verwissel nooit modules of andere onderdelen terwijl het apparaat is ingeschakeld.
- Gebruik voor het afregelen plastic i.p.v metalen gereedschap. Dit om mogelijke kortsluiting te voorkomen of een bepaalde schakeling instabiel te maken.

OPMERKINGEN

- De gelijksspanningen en oscillogrammen dienen gemeten te worden ten opzichte van de apparaat aarde.
- De gelijksspanningen en oscillogrammen vermeld in de schema's dienen gemeten te worden met een kleurbalkensignaal beelddraaggolf op 503.25 MHz (C25).
- De oscillogrammen en gelijksspanningen zijn in RECORD of PLAY mode gemeten.
- De halfgeleiders, die in het pricipeschema en in de stuklijsten, zijn vermeld, zijn per positie volledig uitwisselbaar met de halfgeleiders in het apparaat, ongeacht de typeaanduiding op deze halfgeleiders.

AVISOS

- Las instrucciones de seguridad exigen que después de la reparación el aparato se encuentre en el estado original y que las piezas de repuesto, utilizadas para la reparación, sean idénticas a las originales.
  Los componentes de seguridad estan marcados con ⚠
- Todos los IC y semiconductores son sensibles a descargas electrostáticas (ESD). Un tratamiento no conforme a las instrucciones de semiconductores en caso de reparación, podría llevar a la destrucción de estos componentes, o a una reducción drástica de la duración. Tenga cuidado de que, en caso de reparación, estar al mismo potencial que la masa del aparato, por una pulsera con resistencia. Ponga todos los componentes, herramientas y recursos al mismo potencial.
- Para reparar un aparato hay que conectarlo siempre a la alimentación a traves de un transformador de aislamiento.
- Cuando un aparato está en marcha no pueden ser cambiados módulos u otras piezas de repuesto.
- Para los ajustes hay que utilizar exclusivamente herramientas de plástico (nunca herramientas metálicas). Así se evitaran cortocircuitos y circuitos inestables.

NOTAS

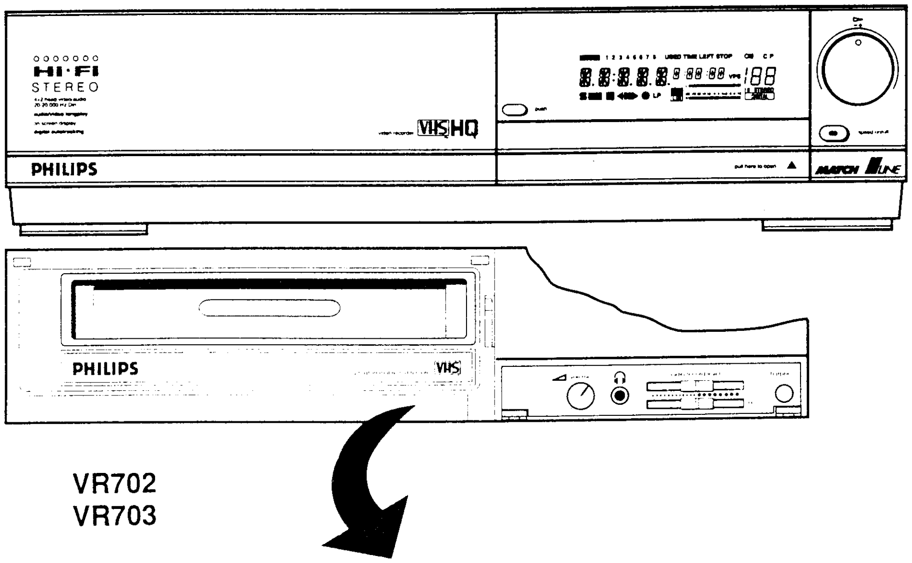
- Hay que medir las tensiones continuas y los oscilogramas contra la masa del aparato.
- Las tensiones continuas y los oscilogramas mencionados en los esquemas tienen que ser medidos de manera siguiente: señal barra de color portadora de imagen en 503.25MHz (C25)
- Los oscilogramas y las tensiones continuas son medidas en "RECORD" y "PLAYBACK"
- Los componentes mencionados en las listas se los puede cambiar por los componentes en el aparato, a pesar de eventuales designaciones de tipos.

AVVERTIMENTI

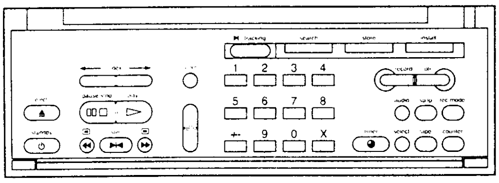
- Le prescrizioni di sicurezza richiedono che l'apparecchio sia ricondotto alle condizioni originali e che siano usati ricambi originali.
  Componenti di sicurezza sono marcati con ⚠
- Tutti gli IC e semiconduttori sono sensibili a scariche elettrostatiche (ESD). Noncuranze durante la riparazione di semiconduttori possono danneggiarli o condurre ad una riduzione drastica della durata. Durante la riparazione assicurarsi di essere collegati allo stesso potenziale attraverso un bracciale di protezione contro scariche elettrostatiche. Inoltre tenere anche tutti i componenti e gli attrezzi a questo potenziale.
- Apparecchi da riparare bisogna collegarli sempre via un trasformatore isolante (separatore) alla tensione normale.
- Non scambiare moduli o altri componenti quando l'apparecchio è in funzione.
- Per l'accordo usare soltanto attrezzi di plastica (non usare attrezzi metallici). Cosí si evitano cortocircuiti e collegamenti instabili.

OSSERVAZIONI

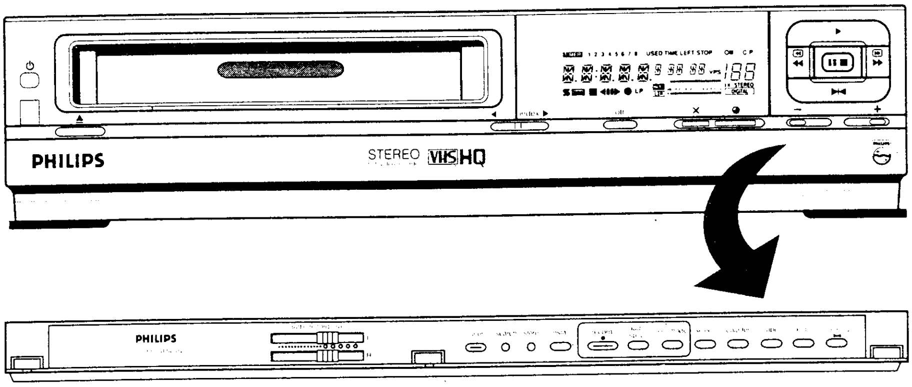
- Misurare le tensioni continue e gli oscillogrammi riferiendosi alla massa dell'apparecchio.
- Le tensioni continue e gli oscillogrammi indicati negli schemi di collegamento devono essere misurati secondo le condizioni seguenti: segnale barre colore, portante dell'immagine su: 503.25 MHz (C25).
- Gli oscillogrammi e le tensioni continue sono misurati in RECORD o PLAYBACK.
- I componenti indicati nelle liste sono intercambiabili con quelli nell'apparecchio nonostante l'eventuale denominazione di modelli.

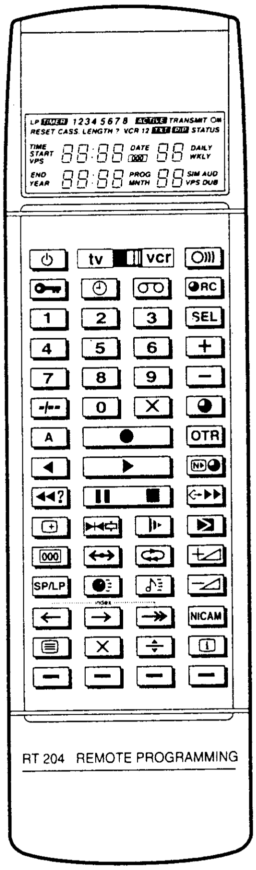

HI·FI
STEREO
PHILIPS
VHS HQ
MATCH LINE
PHILIPS
VHS

VR702
VR703

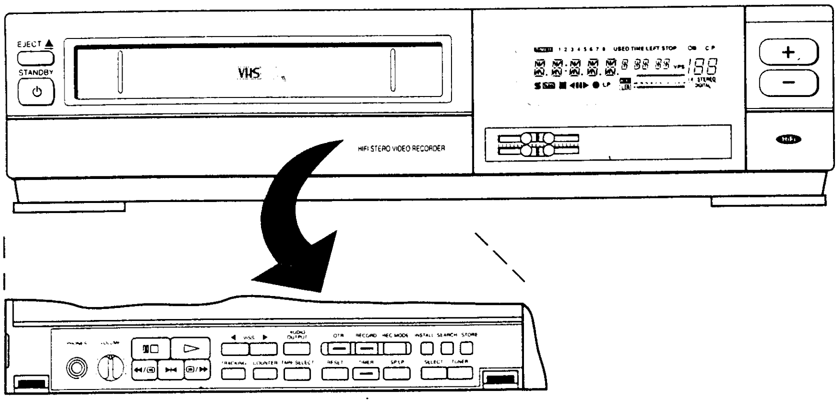

1
2
3
4
5
6
7
8
9
0
X

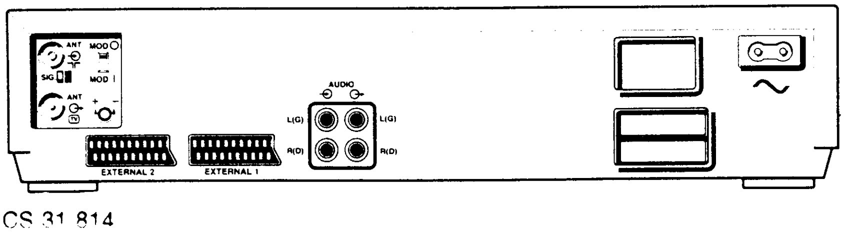
VR502


PHILIPS
STEREO
VHS HQ
PHILIPS


1 2 3 4 5 6 7 8
TRANSMIT
RESET
CASS. LENGTH
STATUS
TIME START VPS
END YEAR
DATE
DAILY WKLY
PROG MNTH
SIM AUD VPS DUB
tv
vcr
RC
1
2
3
SEL
4
5
6
+
7
8
9
−
0
X
A
OTR
000
SP/LP
NICAM
RT 204 REMOTE PROGRAMMING

7SB02


EJECT ▲
STANDBY
VHS
+
−
HIFI STEREO VIDEO RECORDER


ANT
MOD
SIG
ANT
MOD
AUDIO
L(G)
R(D)
L(G)
R(D)
EXTERNAL 2
EXTERNAL 1

Symbols on the video recorder	Symbols on the remote control	Function
▲		Cassette eject
⏻	⏻	Switch off (Stand by)
◆ INDEX	←	Select previous index marker
INDEX ◆	→	Select next index marker
❚❚ ■	❚❚ ■	Pause/Stop
▶	▶	Play
◀◀ ⏪	◀◀ ⏪	Rewind / Picture search backward
▶◀	▶◀	Still picture, frame advance
▶▶ ⏩	▶▶ ⏩	Wind / Picture search forward
TUNER		Tuner mode
+	+	Up
–	–	Down
TRACKING	▶	Auto tracking
SEARCH		Search for a TV channel
STORE		Store a TV channel
INSTALL		Installation
0-9	0-9	Digit buttons
-/--	-/--	One or more digits entry
X	X	Reset
RECORD	●	Record (on the remote control press **A and ●** simultaneously)
OTR	OTR	One Touch Recording (instant recording), on the remote control press **A and OTR** simultaneously
AUDIO	♪	Stereo/Mono/Language 1-2/Audio-Mix selector
SP/LP	SP/LP	Tape speed selector (Short Play/Long Play)
REC.MODE	●≡	Recording mode selector
TIMER	◑	TIMER programming
SELECT	SEL	Function select
TAPE	∞	Tape length selector
COUNTER	000	Time used, time left or tape counter selector
VOLUME ◺		Headphone volume control
🎧		Headphone socket
AUDIO RECORD LEVEL		Audio recording level
SHARPNESS		Picture sharpness control
SPEED ON/OFF		Variable play speed on/off
▶+/–		Variable play speed selector
	TV/VCR	TV/VCR selector
	O)))	Transmit
	O━	Child lock
	◷	Set clock on the remote control
	◑RC	TIMER programming via remote control
	A	Used in conjunction with ● and **OTR**
	◀	Play reverse
	N▶	Fast motion
	⊞	OSD button (On Screen Display)
	❘▸	Slow motion
	↔	Searching for a tape position (GOTO)
	⇄	Endless play
	→»	Searching for index markers (Intro-scan)
	NICAM	No function
	N▶◑	Teletext-subcode
	?	Teletext reveal/conceal information
	⇕	Teletext page hold
	▤	Teletext on /off
	X yellow	Cancel Teletext function (temporary)
	÷	Teletext enlarge text top/bottom
	ⓘ	Teletext index
	▭	Special TXT button - RED
	▭	Special TXT button - GREEN
	▭	Special TXT button - YELLOW
	▭	Special TXT button - BLUE

Rear side of the video recorder:

┐┌	Aerial input socket
TV	Aerial output socket
+◎–	Channel control
EXTERNAL 1	AV-Euroconnector 1 (21-pin scart socket)
EXTERNAL 2	AV-Euroconnector 2 (21-pin scart socket)
∿	Mains socket
MOD I/O	MOD selector (modulator on = I), fitted in some sets only
AUDIO R(D) ⊸	Audio input Right socket
AUDIO L(G) ⊸	Audio input Left socket
AUDIO R(D) ⊸	Audio output Right socket
AUDIO L(G) ⊸	Audio output Left socket

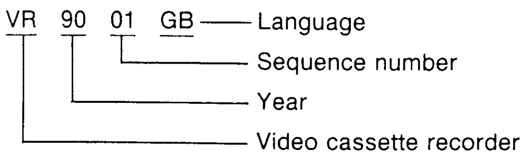
With suitable TV sets the following functions are available (set the TV/VCR switch to ' TV ').

▶	Personal preference button
+◺	TV volume up
–◺	TV volume down

- **Description of the system used for publishing modification data and supplements to the Service Manual.**

All modification data and supplements to the Service Manual are published by means of Service Information bulletins.
Each Service information has a number, for example:

Example


VR 90 01 GB
Language
Sequence number
Year
Video cassette recorder

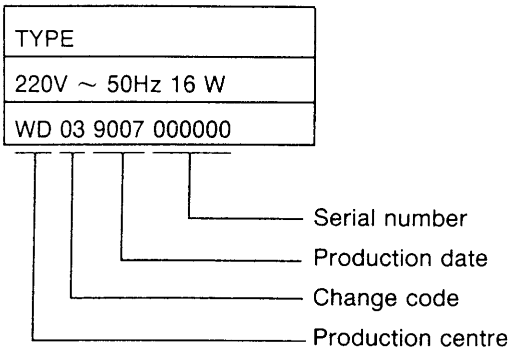
A Service Information bulletin consists of a yellow front sheet, as the case may be followed by supplementary and/or replacement sheets.
Replacement sheets serve to replace existing sheets in the Service Manual. These sheets are identified by an additional letter after the page number, for example 5-1a. Page 5-1a then takes the place of page 5-1.

Supplementary sheets are inserted between the existing sheets in the Service Manual. These sheets can be identified by an additional figure following the page number, for example 5-1-1.
Sheet 5-1-1 should be inserted after page 5-1.
Each Service Information is accompanied by an updated list of contents per page.
For each page added or each page replaced the list of contents indicates with which service information the relevant page has been published.

- **Description of the system by means of which modifications are indicated in the recorder.**

All important parts of the recorder, such as tape deck, p.c. boards and modules, are provided with a sticker. These stickers specify a number of product data.
The meaning of this data will now be explained for the most important sections.

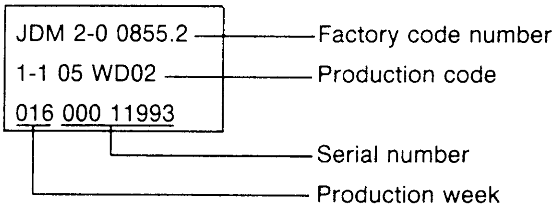
- *The complete recorder*
  Type plate
  The type plate is located at the back of the recorder. Below an example of such a type plate is given.


TYPE
220V ~ 50Hz 16 W
WD 03 9007 000000
Serial number
Production date
Change code
Production centre

Note:
- In the case of an important modification to the recorder the production code on the type plate is increased by one. E.g. 00 becomes 01.

- *Tape deck*
  Location of the sticker: to the inside of the left raised border of the mounting plate.

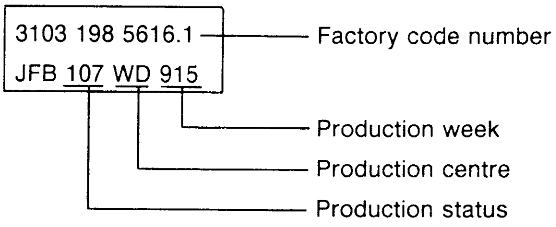
Example


JDM 2-0 0855.2
1-1 05 WD02
016 000 11993
Factory code number
Production code
Serial number
Production week

Note:
The production code and the serial number on the tape deck need not correspond to the production code and the serial number on the type plate.

- *Printed panels*
  The stickers are generally located on the track side of the module.

Example


3103 198 5616.1
JFB 107 WD 915
Factory code number
Production week
Production centre
Production status

Remarks:
- The production status number will not always be mentioned.
- In case of an important modification, the last figure of the factory code number (point number) is increased by one. E.g. 5616.1 becomes 5616.2.

SERVICE TEST PROGRAMME

2.1. Introduction

In the software programme µC 7354 (8052), a service test programme has been recorded on JFBU/DE. The service test programme is divided into five modes of operation:

- Checking the tape deck functions
- Checking the sensors in the tape deck + indication of mask number of the deck software
- Elapsed time indicator
- Indicator of mask number of service and control software
- Fatigue test

2.2. Calling up the Service Test Programme

The service test programme is called up by simultaneously pressing the 'STOP' button on the remote control and the 'PLAY' button on the equipment for at least 5 secs.
On the display there then appears, in place of the tape counter reading, information about the first mode of operation of the service test programme. This can be changed to the next respective mode of service operation by pressing the 'TIMER' button on the equipment. The service test programme may be called up in any operational state of the equipment, with the exception of station finding. During service mode the equipment remains fully operational in all tape deck functions. The test programme is switched off by pressing the 'STAND-BY' button or by disconnecting the equipment at the mains.

2.3. Checking the Tape Deck Functions

2.3.1.Time Required for Winding and Unwinding

For this check, the signals from the switches SWA, SWB and SWC, which are to be found in the tape deck, are taken as the reference points. The signals SWA and SWB from the 'mode select switch' detect the winding or unwinding position. The signal SWC indicates the position of the cassette when loading ('frontloading') or unloading ('EJECT').

Fig. 2.1. shows the sequence in which the switches close.

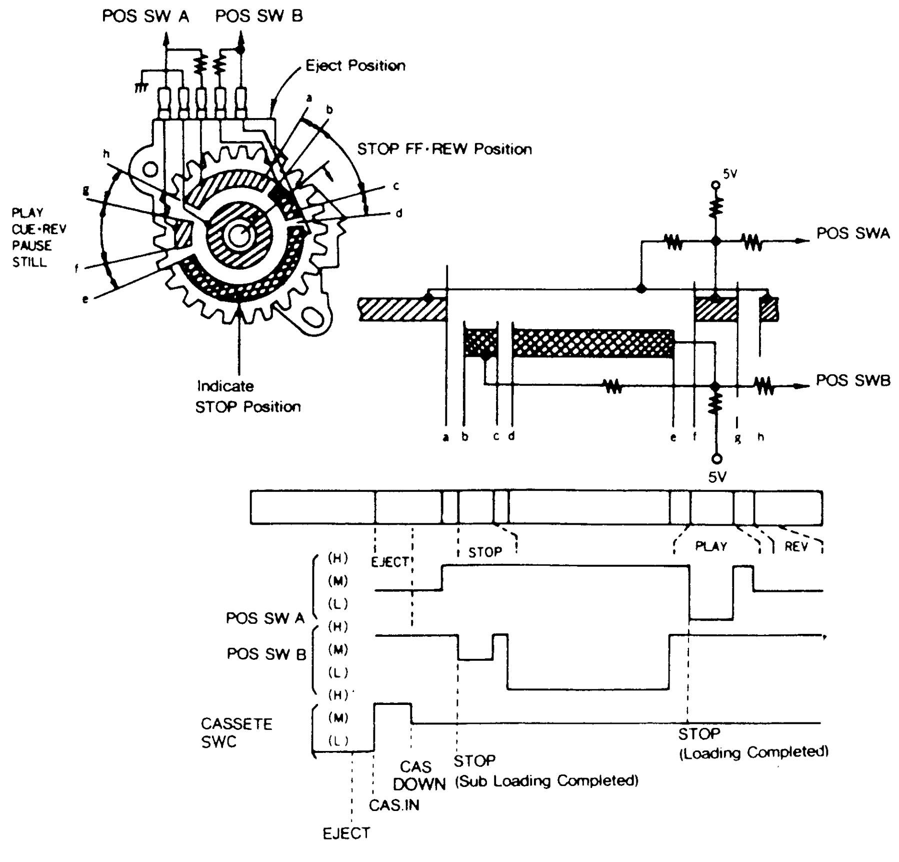

POS SW A
POS SW B
Eject Position
a
b
STOP FF·REW Position
c
d
h
g
PLAY
CUE·REV
PAUSE
STILL
f
e
Indicate
STOP Position
5V
POS SWA
POS SWB
a b c d e f g h
5V
EJECT
STOP
PLAY
REV
(H)
(M)
(L)
POS SW A
(H)
POS SW B
(M)
(L)
(H)
CASSETE
SWC
(M)
(L)
STOP
(Loading Completed)
CAS
DOWN
STOP
(Sub Loading Completed)
CAS.IN
EJECT
44 487 B11

Fig 2.1

When the three switches are closed, a voltage level corresponding to the respective position of the switch is obtained by addition at the output Pin 7 of IC 7350-B. This voltage level is presented to IC 7352 at Pin 12. The signals SEL 0 and SEL 1 switch this voltage level through to Pin 7 of IC 7353-C. At Pin 6 of IC 7353-C there is a ramp voltage which is produced by an RC-network and a discharge level IC 7353-A. This level is controlled by the 'discharge' tube. By relating the ramp voltage (Pin 6 IC 7353-C) and the respectively conterminous d.c. voltage (Pin 7 IC 7353-C), a pulse occurs at the ouput (Pin 1 IC 7353-C), the length of which is a measure of the amount of d.c. voltage. As long as this pulse is 'high' then the 400kHz pulse from Pin 13 of IC 7353-D is passed on to Pin 15 of IC 7354 and counted by this latter. The number of these pulses is thus a measure of the d.c. voltage, which in its turn is a measure for the position of the three switches. Should the time provided be exceeded during winding, the lifting mechanism is once again brought into the 'eject' position. Should the time provided be exceeded during unwinding, then the equipment attempts to reach the 'stop' position and switches to the 'stand-by' position.

2.3.2.Failure of the Left or Right Winding Disk

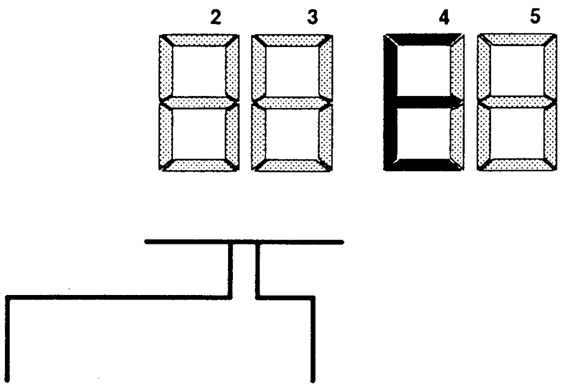
For checking this, the tacho signals from the left (WTAL) and right (WTAR) winding disks are taken as a a reference point. Both signals are presented to IC 7351 and processed. These signals (WTALD, WTARD) are checked by IC 7354. If one or both of the signals are absent, the equipment switches to the 'stand-by' position.

2.3.3.Failure in the Head Wheel Motor

For checking this, the PG/FG signal is used. It is diverted into IC 7359 from the EMK of that tape spool of the head wheel motor through which no current is flowing and indicates the position of the head wheel. This signal is then transmitted to Pin 2 of IC 7354. If the PG/FG signal is not available, the equipment attempts to bring the lifting mechanism into the 'eject' position and switches to the 'stand-by' position.

2.3.4.Explanation of the Error Code

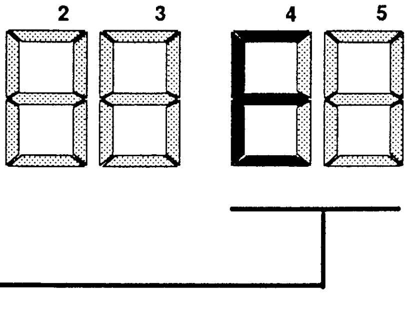
After calling up the service test programme, the data for checking the tape deck appear in four figures (--E-) in place of the tape counter reading. The first two figures indicate the status of the tape deck in which the error has occurred (see fig. 2.2.).



00	standby	17	stand by eject
01	eject on	18	record simulcast
02	stop	19	record audio
03	still	20	record dubbing
04	play	21	pause dubbing
05	tuner	24	record insert
06	record	28	super slow
07	play + tracking	29	play reverse x9
08	scan forward	30	play reverse x7
09	scan reverse	31	play reverse x5
10	wind	32	play reverse x3
11	rewind	33	play x3
12	pause	34	play x5
13	reverse	35	play x7
14	fast	36	play x9
15	slow	37	play x11
16	tuner eject	38	fixed tracking

Fig. 2.2

The last two figures indicate the type of error (see fig. 2.4.).



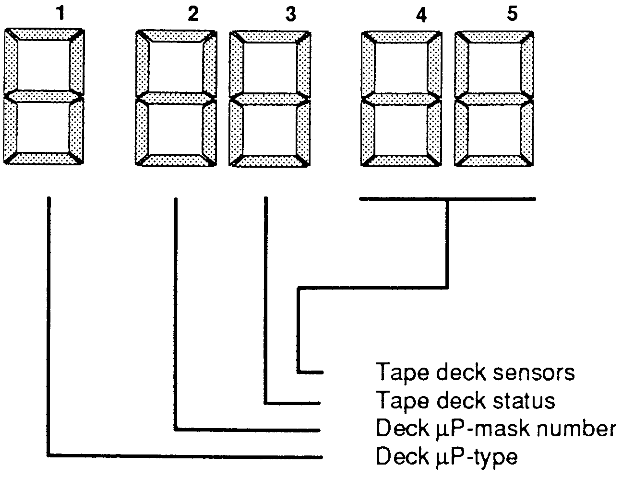
E0	no error
E1	threading error
E2	not used
E3	not used
E4	error of left tacho reel
E5	error of right tacho reel
E6	blocked headdrum

Fig 2.3

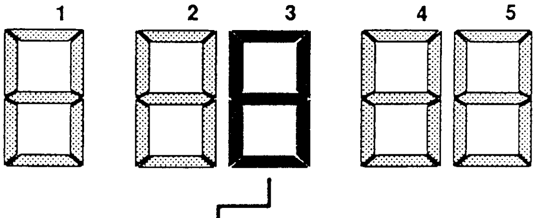
The last error code which occurred is stored in the TIMER BACKUP RAM and remains stored even if the equipment is disconnected from the mains. This error code can be erased by pressing the 'RESET' button in the service mode.

2.4. Checking the Sensors

By pressing the 'TIMER' button once, one proceeds from the tape deck check to the sensor check. The indicator is in this case 5-figured.

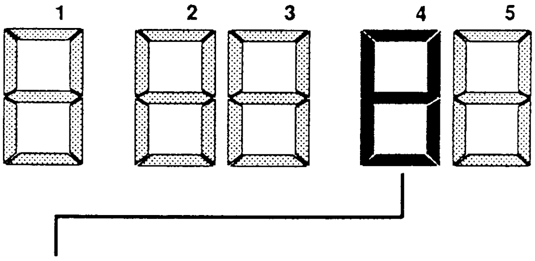


Tape deck status:



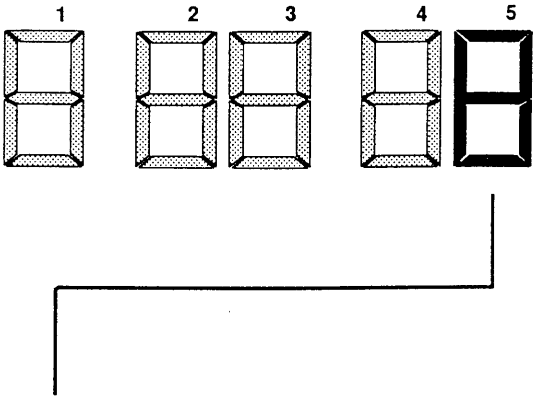
0	eject
1	tape end
4	stop
2,3,5,6	transistions

Tape deck sensors: (checking without cassette)



0	No pulse from the winding tachometers
1	Pulse from right winding tachometer
2	Pulse from left winding tachometer
3	Pulse from both winding tachometers (1+2)

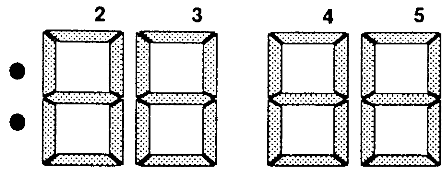
The information on the two tachometers is stored and can be erased by alternately switching from 'TUNER' to one of thetape deck functions.



0	TAS + TAE is not acknowledged (no signal from LED)
1	TAS is acknowledged
2	TAE is acknowledged
3	TAS + TAE is acknowledged
4	RP check can only be made with the cassette

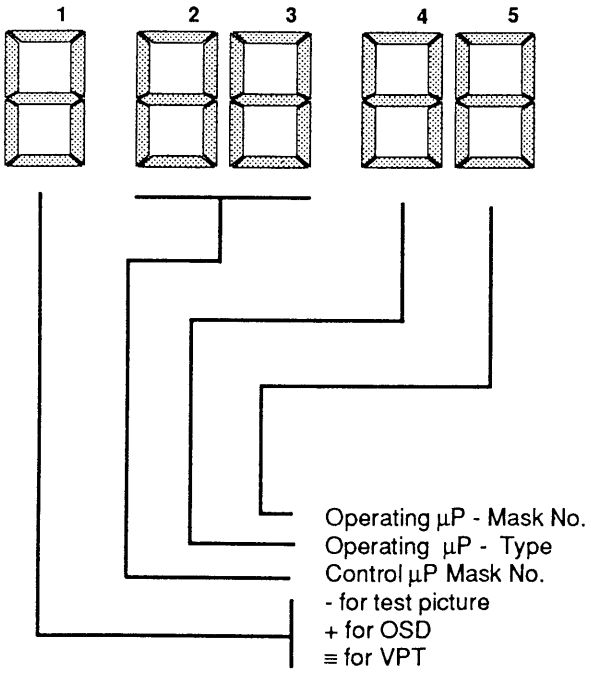
2.5. Elapsed Time Indicator

After calling up the service test programme, the elapsed time indicator can be activated by pressing the 'TIMER' button. It indicates how many hours the head disk has been rotating. This indicator is four-figured.



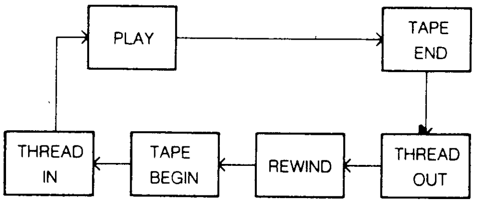
2.6. Indicator of the Mask Number of the Service and Test Software

This 'mode' is activated by pressing the 'TIMER' button several times. The indicator is here five-figured.


1
2
3
4
5
Operating µP - Mask No.
Operating µP - Type
Control µP Mask No.
- for test picture
+ for OSD
≡ for VPT

2.7. Fatigue Test

The equipment can also be subjected to a fatigue test in the service programme. For this, the equipment must be switched to one of the positions 'PLAY', 'REC' or 'REWIND'. The functions are then performed continuously. This check is designed to detect intermittent errors. The last error that occurred is stored in the TIMER BACKUP RAM (the error also remains stored after a mains failure). The fatigue test is ended by exiting from the service test programme.


PLAY
TAPE END
THREAD OUT
REWIND
TAPE BEGIN
THREAD IN

PRS.05936
T02/917

REMOVAL OF CASE COMPONENTS AND SERVICE POSITIONS OF PRINTED CIRCUIT BOARDS

For tape deck information see the separate information leaflet G-Tape-Deck including service Information for VR 89-17.

1. The Case Lid

Removal:

- Unscrew the screws A, B, C, D, E and F (see fig. 1).
- Pull back the case lid by approx. 1 cm. When the side walls of the case lid are pushed outwards slightly, it can be taken off.

Mounting:

- Place the front groove of the case lid so that it is almost on the front panel. Installation is then carried out in reverse order to the above.

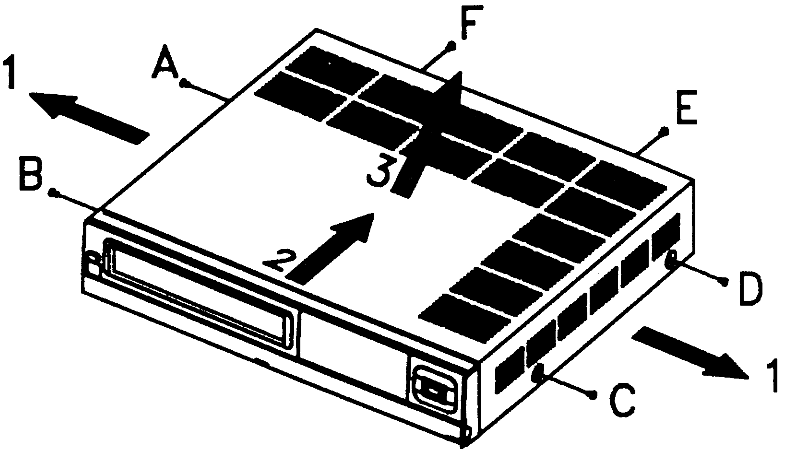


Fig. 1

2. The Floor Board

- Lay down the equipment with the underside facing upwards.
- The floor board can be removed by undoing the two clasps (see fig.2)

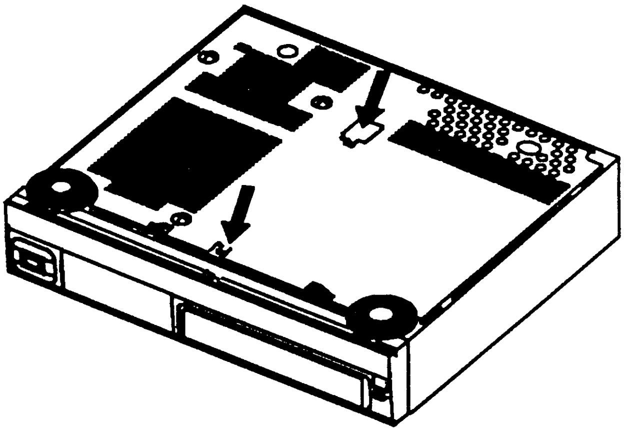
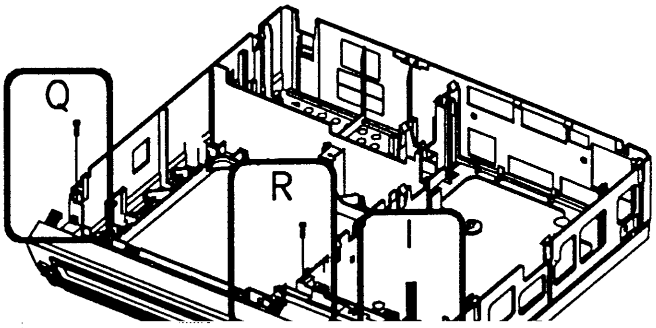


Fig. 2

3. The Front Panel

- Remove the case lid (see Item 1).
- Unscrew screws Q, R and I (only for VR70) (see fig 3).
- With VR70, remove the volume and picture sharpness knobs.
- After undoing the 3 clasps (see fig. 3) the front panel can be folded forwards and removed.



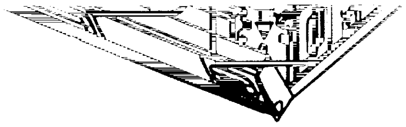


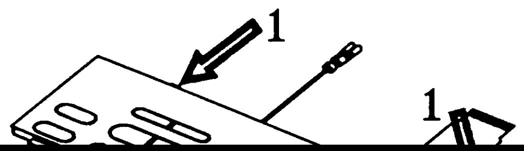
Fig. 3

Note:

- When mounting, the front panel must f adjusted underneath to the five cams c
- With VR70, the volume and picture sh are put on again last of all, after the fro been mounted.

rst be
f the housing.
arpness knobs
nt panel has

4. Changing the Key Block in VR70



- Remove the front panel (see Item 3).

[redacted]

- The socket mounting can be removed by pressing the rear wall backwards (see fig. 8).
- The JAF print board can be removed from the case by undoing the two clasps (see fig. 9).

8. JCO (Control Board)

- Removal of the family board as in Item 5, although without putting it into the service position, but placing it on the left instead.
- Now remove the control board and place it on the right beside the equipment.

9. JDC (Service Board)

- Remove the front panel (see Item 3).
- Unscrew screw 21
- The service board can be removed by undoing the clasps (see fig. 10).

Note:

The components beneath the indicator become accessible by undoing the 5 clasps of the indicator mounting.

10. Tape Deck

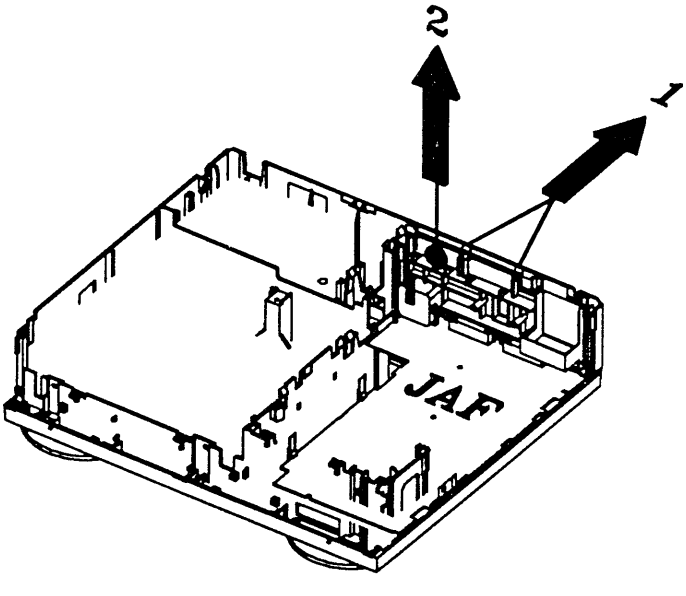


Fig. 8

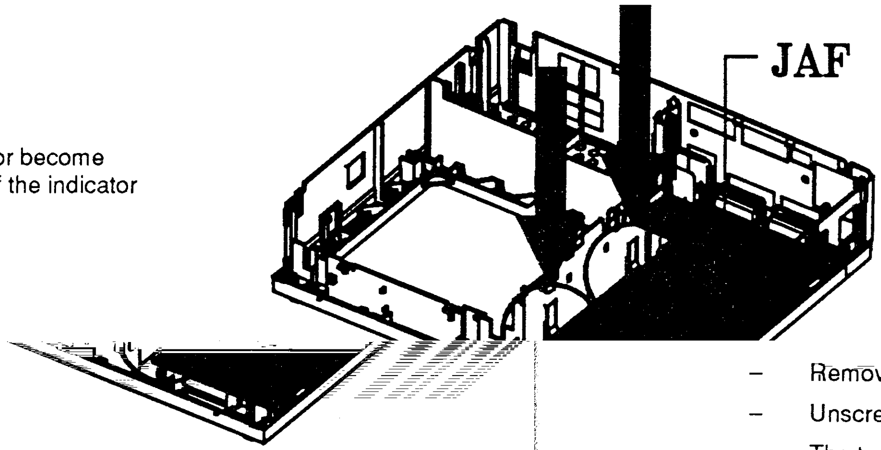


Fig. 9

ne service board (see fig. 10).

screws S, T and U (see fig. 11).

deck can now be removed whole from the

- Remove th
- Unscrew s
- The tape d housing.

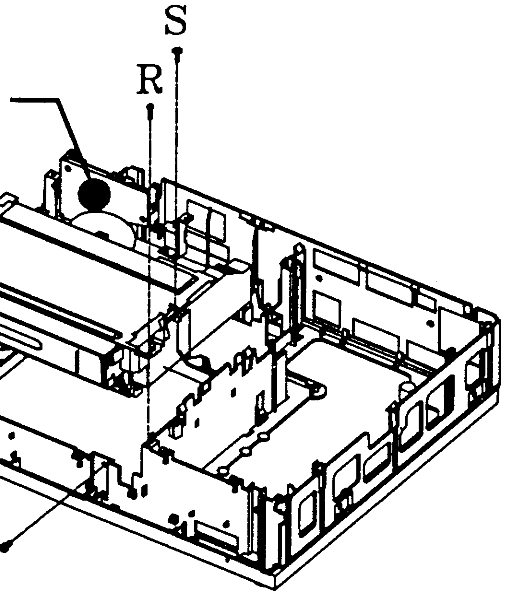


Fig. 11

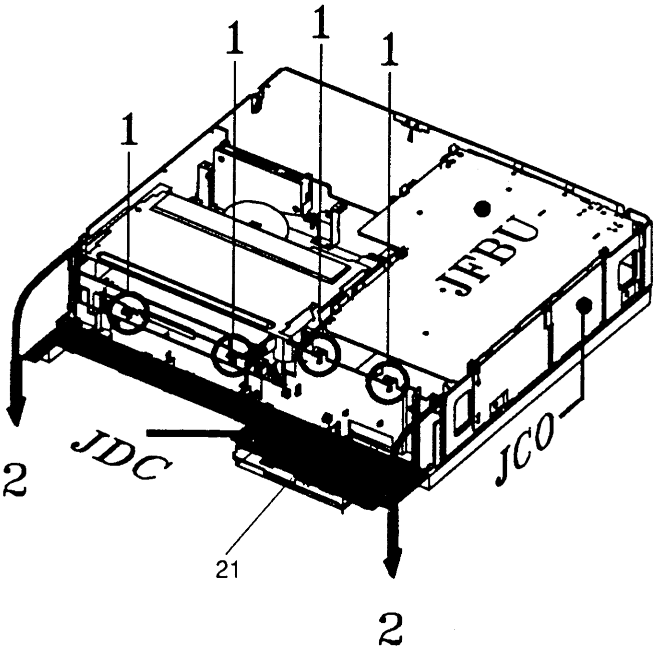
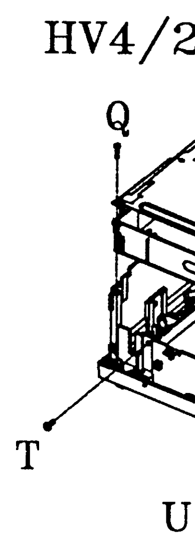


Fig. 10



Servicing of SMDs (Surface Mounted Devices)

1. General cautions on handling and storage.

a) Oxidation on the SMDs terminals results in poor soldering. Do not handle SMDs with bare hands.

b) Avoid for storage places that are sensitive to oxidation such as places with sulfur or chlorine gas, direct sunlight, high temperatures or a high degree of humidity.
As a result the capacitance or resistance value of the SMDs may be affected.

c) Rough handling of circuit boards containing SMDs may cause damage to the components as well as the circuit boards. Circuit boards containing SMDs should never be bent or flexed. Different circuit board materials expand and contract at different rates when heated or cooled and the components and/or solder connections may be damaged due to the stress. Never rub or scrape chip components as this may cause the value of the component to change. Similarly, do not slide the circuit board across any surface.

2. Removal of SMDs

a) Heat the solder (for 2–3 seconds) at each terminal of the chip. Small components can, by means of litz wire and a limited horizontal force, be removed with the soldering iron. They can also be removed with a solder sucker (see Fig. 2a) or

b) While holding the SMD with a pair of tweezers take it off gently using the soldering iron's heat applied to each terminal (see Fig. 2b).

c) Remove the excess solder on the solder lands by means of litz wire or a solder sucker (see Fig. 2c).

Caution on removal:

a) When handling the soldering iron, use suitable pressure and be careful.

b) When removing the chip, do not use undue force with the pair of tweezers.

c) The soldering iron to be used (approx. 30 W), must preferably be provided with a thermal control (soldering temperature about 225 to 250°C).

d) The chip, once removed, must **never** be used again.

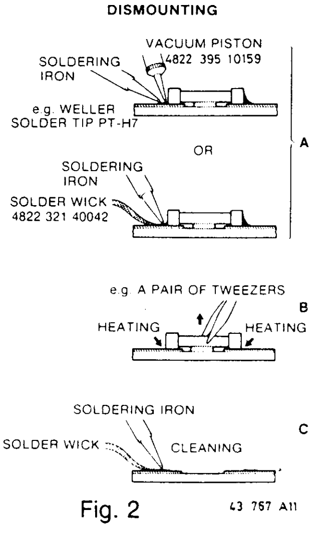

DISMOUNTING
VACUUM PISTON
4822 395 10159
SOLDERING IRON
e.g. WELLER SOLDER TIP PT-H7
OR
A
SOLDERING IRON
SOLDER WICK 4822 321 40042
e.g. A PAIR OF TWEEZERS
B
HEATING
HEATING
SOLDERING IRON
C
SOLDER WICK
CLEANING
43 767 A11

Fig. 2

3. Attachment of SMDs

a) Locate the SMD on the solder lands by means of tweezers and solder the component at one side. Ensure that the component is positioned well on the solder lands (see Fig. 3a).

b) Next complete the soldering of the terminals of the component (see Fig. 3b).

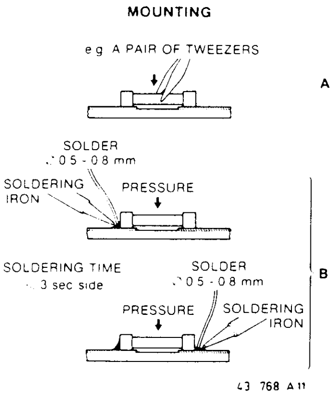

MOUNTING
e.g. A PAIR OF TWEEZERS
A
SOLDER
0.5 - 0.8 mm
SOLDERING IRON
PRESSURE
SOLDERING TIME
3 sec side
SOLDER
0.5 - 0.8 mm
PRESSURE
SOLDERING IRON
B
43 768 A11

Fig. 3

Caution on attachment:

a) When soldering the SMD terminals, do not touch them directly with the soldering iron. The soldering must be as quick as possible; care must be taken to avoid damage to the terminals and the body itself.

b) Keep the SMD's body in contact with the printed board when soldering.

c) The soldering iron to be used (approx. 30 W) must preferably be provided with a thermal control (soldering temperature about 225 to 250°C).

d) Soldering should not be done outside the solder land.

e) Soldering flux (of rosin) may be used but should not be acidic.

f) After soldering, let the SMD cool down gradually at room temperature.

g) The quantity of solder must be proportional with the size of the solder land. If the quantity is too great, the SMD might crack or the solder lands might be torn loose from the printed board (see Fig. 4).

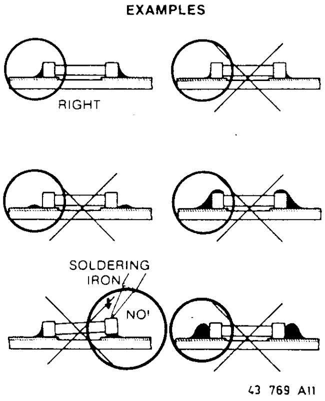
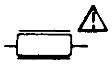
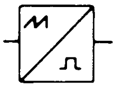

EXAMPLES
RIGHT
SOLDERING IRON
NO!
43 769 A11

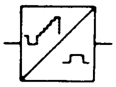
Fig. 4



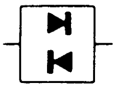
Safety resistor
Veiligheidsweerstand
Sicherheitswiderstand
Résistance de sécurité
Resitencia de seguridad
Resistenza i sicurezza



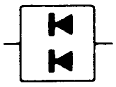
Sawtooth pulse converter
Zaagtand-puls omzetter
Sägezahn Impulsumformer
Convertisseur d'impulsions en dents de scie
Convertidor de impulsos en diente de sierra
Convertitore a dente di sega



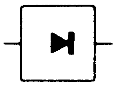
Sync separator
Sync scheider
Séparateur sync
Separador de sincronismos
Separatore dei sincronismi



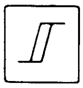
FM detector
FM detector
FM-Detektor
Détecteur FM
Detector de FM
Rivelatore FM



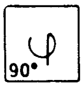
Phase discriminator
Fasediscriminator
Phasenvergleich
Discriminateur de phase
Dicriminador de fase
Discriminatore di fase



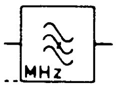
Detector
Detector
Detektor
Détecteur
Detector
Rivelatore



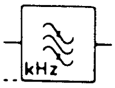
Level detector
Niveau detector
Niveau-Detektor
Détecteur de niveau
Detector de nivel
Rivelatore di livello



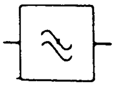
Phase-changing network
Faseverschuiver
Phasenverschiebung
Circuit de déphasage
Circuito de cambio de fase
Circuito sfasatore



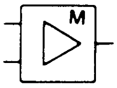
Rejection filter
Bandsperfilter
Bandsperrefilter
Filtre de suppression
Filtro supresor
Filtro soppressore



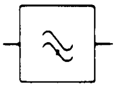
Bandpass filter
Band-doorlatend filter
Bandpassfilter
Filtre passe-bande
Filtro pasa-banda
Filtro passa-banda



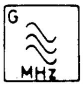
Low-pass filter
Laag-doorlatend filter
Tiefpassfilter
Filtre passe-bas
Filtro pasa-bajos
Filtro passa-basso



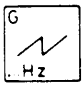
Mixer stage
Mengtrap
Mischstufe
Etage mélangeur
Mezclador
Stadio miscelatore



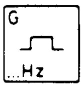
High-pass filter
Hoog-doorlatend filter
Hochpassfilter
Filtre passe-haut
Filtro pasa-alto
Filtro passa-alto



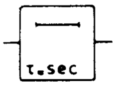
HF generator
HF generator
HF-Generator
Générateur HF
Generador de RF
Generatore A.F.



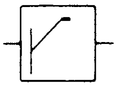
Sawtooth generator
Zaagtandgenerator
Sägezahngenerator
Générateur de dents de scie
Generador diente de sierra
Generatore di dente disega



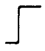
Square wave generator
Pulsgenerator
Rechteckgenerator
Générateur d'impulsions
rectangulaires
Generador de onda cuadrada
Generatore di onda guadra



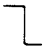
Delay element
Vertragingselement
Verzögerungselement
Elélement à retard
Elemento de retardo
Linea di ritardo



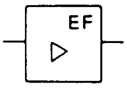
Limiter
Begrenzer
Begrenzer
Limiteur
Limitador
Limitatore



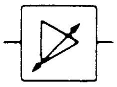
Positive-goingstep function
Positieve flank
Übergang von tief zu hoch
Fonction de palier en sens positif
Flanco de subida positivo
Abilitazione durante il fronte di salita



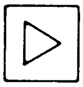
Negative-going step function
Negatieve flank
Übergang von hoch zu tief
Fonction de palier en sens négatif
Flanco de bajada negativo
Abilitazione durante il fronte di discesa



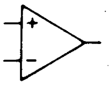
Emitter follower
Emitter volger
Emitter folger
Emetteur suiveur
Seguidor de emisor
Inseguitore d'emittitore



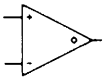
Automatically controlled amplifier
Automatische gestuurde versterker
Automatisch gesteuerter Verstärker
Amplificateur à commande automatique
Amplificador de control automático
Amplificatore autocontrollato



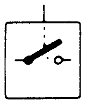
Amplifier
Versterker
Verstärker
Ampli
Amplificador
Amplificatore



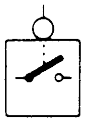
Differential amplifier
Verschilversterker
Differentialverstärker
Ampli différentiel
Amplificador diferencial
Amplificatore differenziale



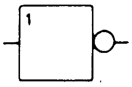
Amplifier with open output
Versterker met open uitgang
Verstärker mit offenem Ausgang
Ampli a sortie ouverte
Amplificador de salida abierta
Amplificatore con uscita aperta



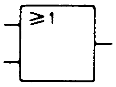
Electronic switch
Electronische schakelaar
Electronische Schalter
Commutateur électronique
Conmutador electrónico
Interruttore elettronico



Electronic switch
Electronische schakelaar
Electronische Schalter
Commutateur électronique
Conmutador electrónico
Interruttore elettronico

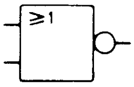


Invertor
Inverter
Inverter
Invertisseur
Inversor
Invertitore



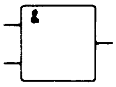
Or gate
Of-poort
Oder
Porte ou
Puerta or
Porta or

A	B	x
0	0	0
0	1	1
1	0	1
1	1	1



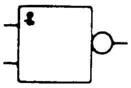
Nor gate
"Nor"
"Nor"
Porte Non-ou
Puerta nor
Porta nor

A	B	x
0	0	1
0	1	0
1	0	0
1	1	0



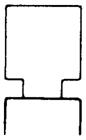
And gate
En-poort
Und Gatter
Porte Et
Puerta and
Porta and

A	B	x
0	0	0
0	1	0
1	0	0
1	1	1



Nand gate
"Nand"
"Nand"
Porte "Non-Et"
Puerta nand
Porta nand

A	B	x
0	0	1
0	1	1
1	0	1
1	1	0



Common control block
Gemeenschappelijk controleblok
Gemeinschaftlicher Kontrolleblock
Bloc de contrôle commun
Bloque de control común
Sezione di controllo comune

SRG Shift register
Schuif register
Schieberegister
Registre à décalage
Registro de desplazamiento
Registro di scorrimento

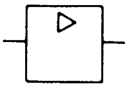
Q Output
Uitgang
Ausgang
Sortie
Salida
Uscita

◇ Open collector output
Open kollektor uitgang
Offenen Kollektor Ausgang
Sortie collecteur ouvert
Salida de colector abierto
Uscita a collettore aperto

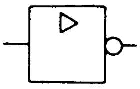
G Command input
Kommando ingang
Kommando eingang
Entrée ordres
Entrada de órdenes
Comando di ingresso

CE Chip enable input
Chip enable ingang
Chip enable eingang
Entrée chip validation
Entrada de validación del chip
Abilitazione ingresso dati

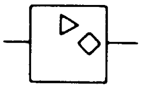
00 Bidirectional
Tweezijdig gevoelig
Doppelseitig empfindlich
Bidirectinel
Bidireccional
Bidirezionale



Buffer
Buffer
Puffer
Tampon
Buffer (Memoria intermedia)
Buffer

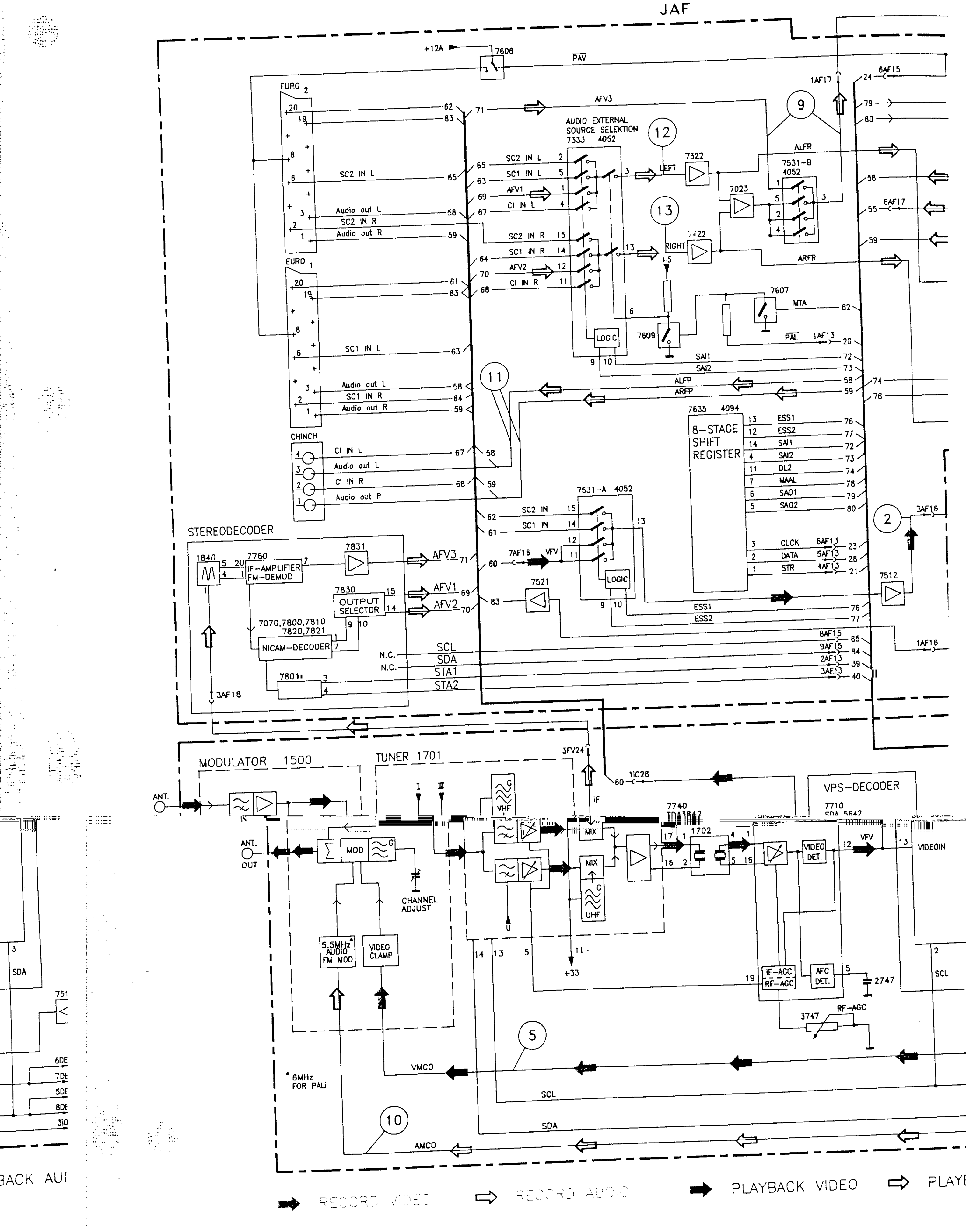


Inverting buffer
Inverterende buffer
Invertierende puffer
Tampon invertisseur
Buffer inversor
Buffer invertente

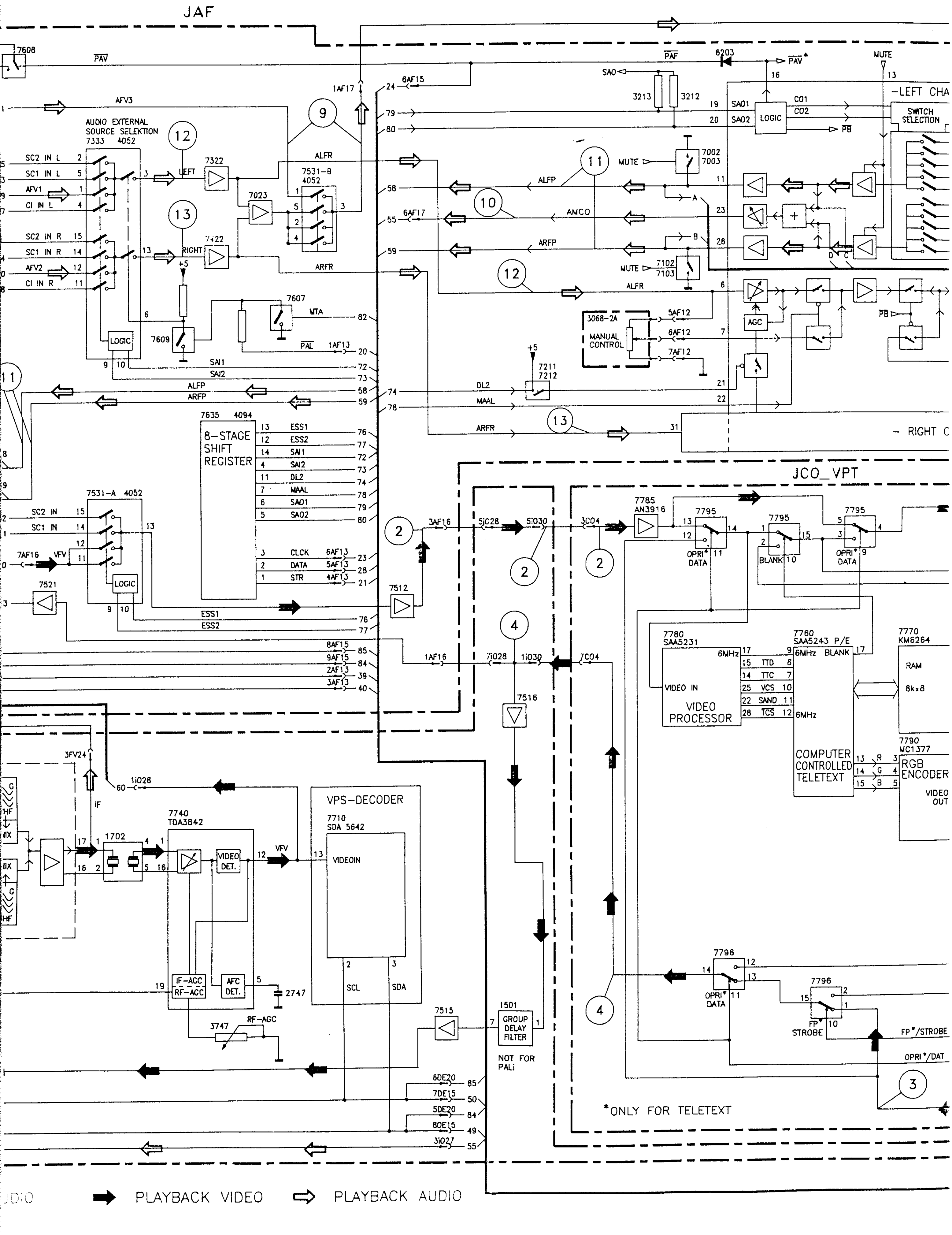


Buffer with open output
Buffer met open uitgang
Puffer mit offenem ausgang
Tampon à sortie ouverte
Buffer de salida abierta
Buffer con uscita aperta

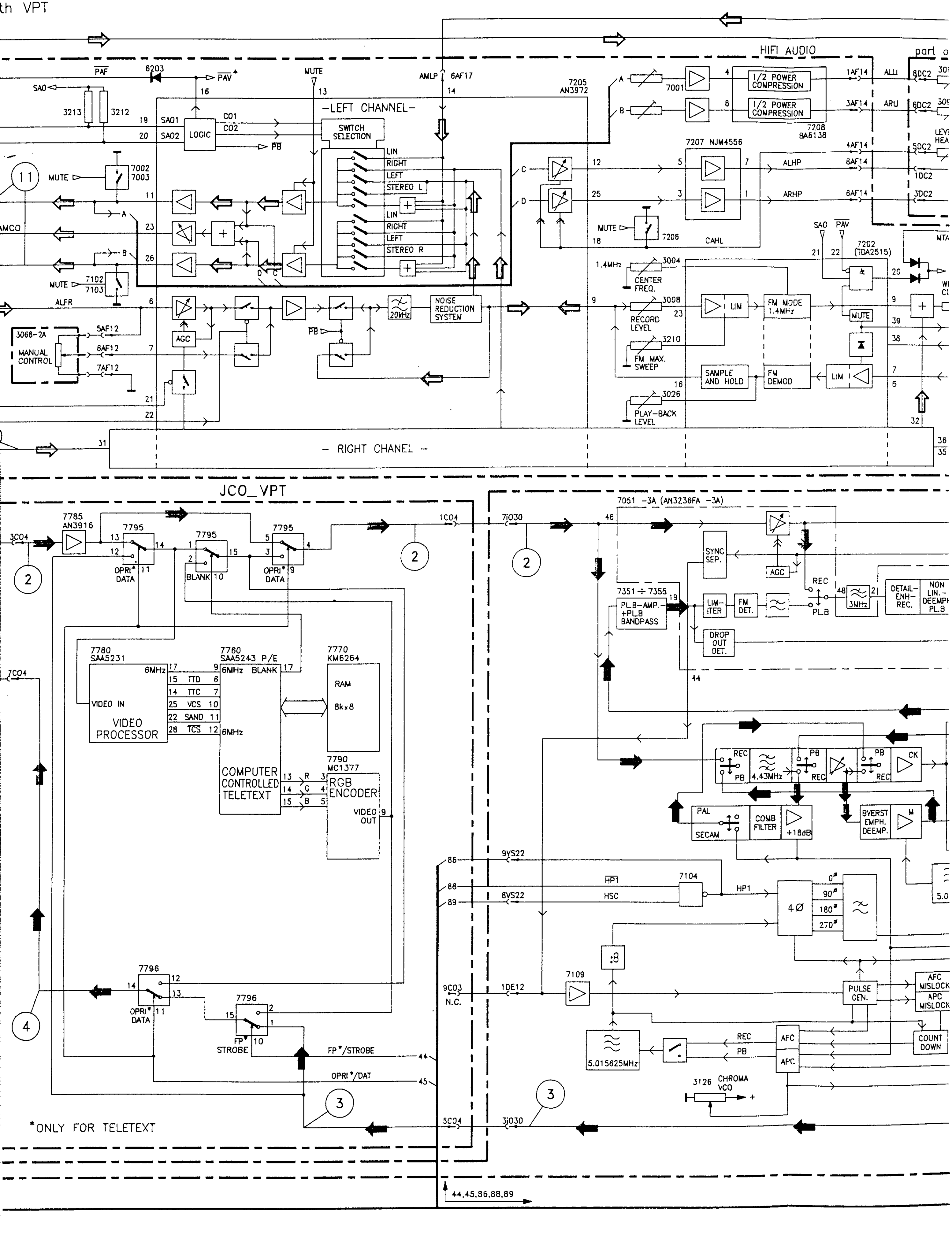
BLOCKDIAGRAM SIGNALELE


JAF
+12A
7608
PAV
EURO 2
AFV3
AUDIO EXTERNAL SOURCE SELEKTION 7333 4052
12
9
1AF17
6AF15
SC2 IN L
SC1 IN L
AFV1
CI IN L
LEFT
7322
ALFR
7531-B 4052
7023
13
6AF17
Audio out L
SC2 IN R
Audio out R
SC2 IN R
SC1 IN R
AFV2
CI IN R
RIGHT
7422
+5
ARFR
EURO 1
7607
MTA
LOGIC
7609
PAL
1AF13
SC1 IN L
SAI1
SAI2
11
ALFP
ARFP
Audio out L
SC1 IN R
Audio out R
7635 4094
8-STAGE SHIFT REGISTER
ESS1
ESS2
SAI1
SAI2
DL2
MAAL
SAO1
SAO2
CHINCH
CI IN L
Audio out L
CI IN R
Audio out R
7531-A 4052
SC2 IN
SC1 IN
2
3AF16
STEREODECODER
1840
7760
IF-AMPLIFIER FM-DEMOD
7831
AFV3
7AF16
VFV
7521
7512
CLCK
DATA
STR
6AF13
5AF13
4AF13
7830
OUTPUT SELECTOR
AFV1
AFV2
7070,7800,7810 7820,7821
NICAM-DECODER
ESS1
ESS2
8AF15
9AF15
2AF13
3AF13
1AF16
N.C.
SCL
SDA
STA1
STA2
7801
3AF18
MODULATOR 1500
TUNER 1701
3FV24
IF
1I028
VPS-DECODER
7710
ANT.
IN
VHF
MIX
7740
1702
VIDEO DET.
VFV
VIDEOIN
ANT. OUT
MOD
CHANNEL ADJUST
UHF
U
+33
5.5MHz AUDIO FM MOD
VIDEO CLAMP
IF-AGC
RF-AGC
AFC DET.
2747
3747
RF-AGC
SCL
5
VMCO
6MHz FOR PAL
SCL
SDA
10
AMCO
SDA
751
6DE
7DE
5DE
8DE
31O
BACK AU
RECORD VIDEO
RECORD AUDIO
PLAYBACK VIDEO
PLAYB

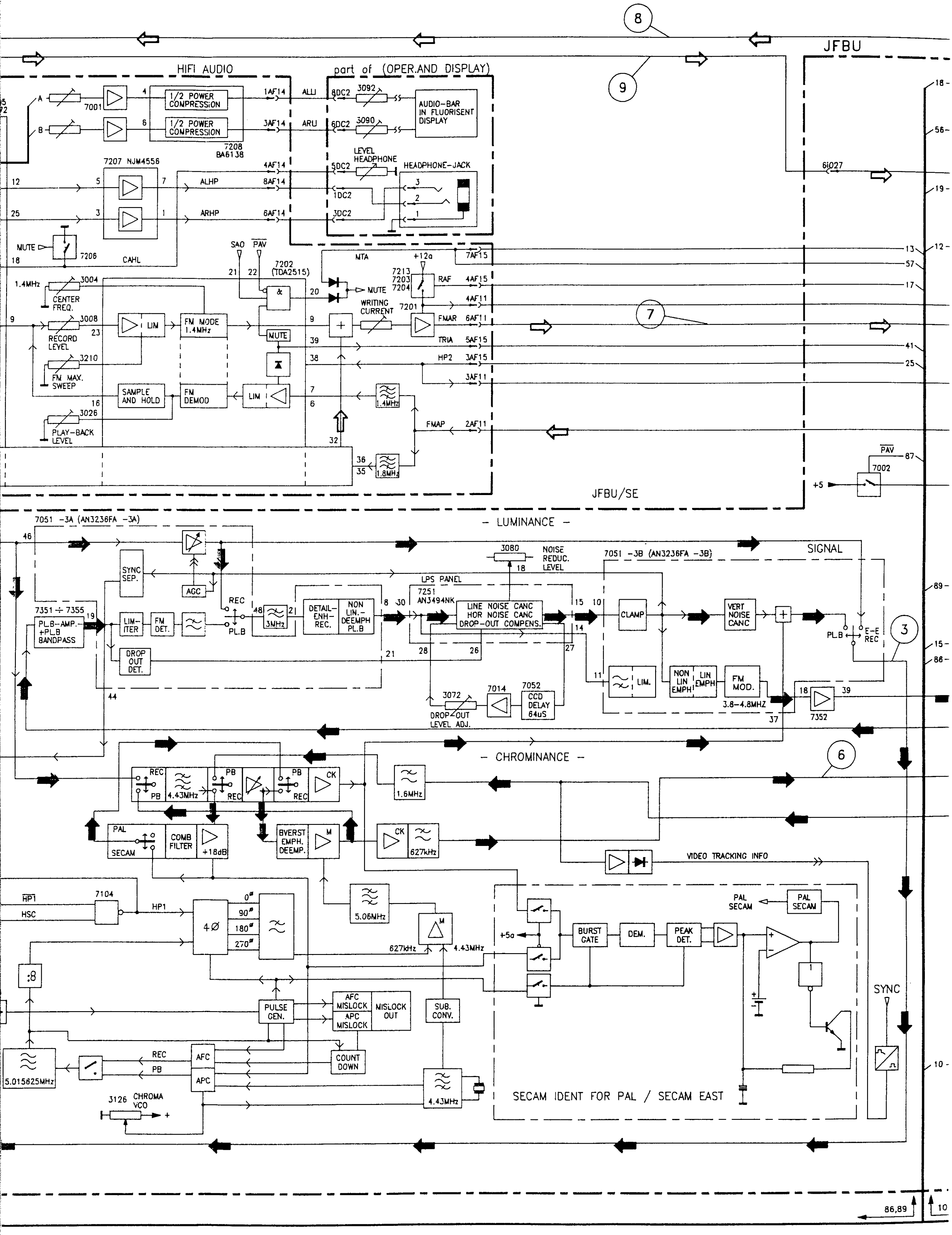
BLOCKDIAGRAM SIGNALELECTRONIC with VPT

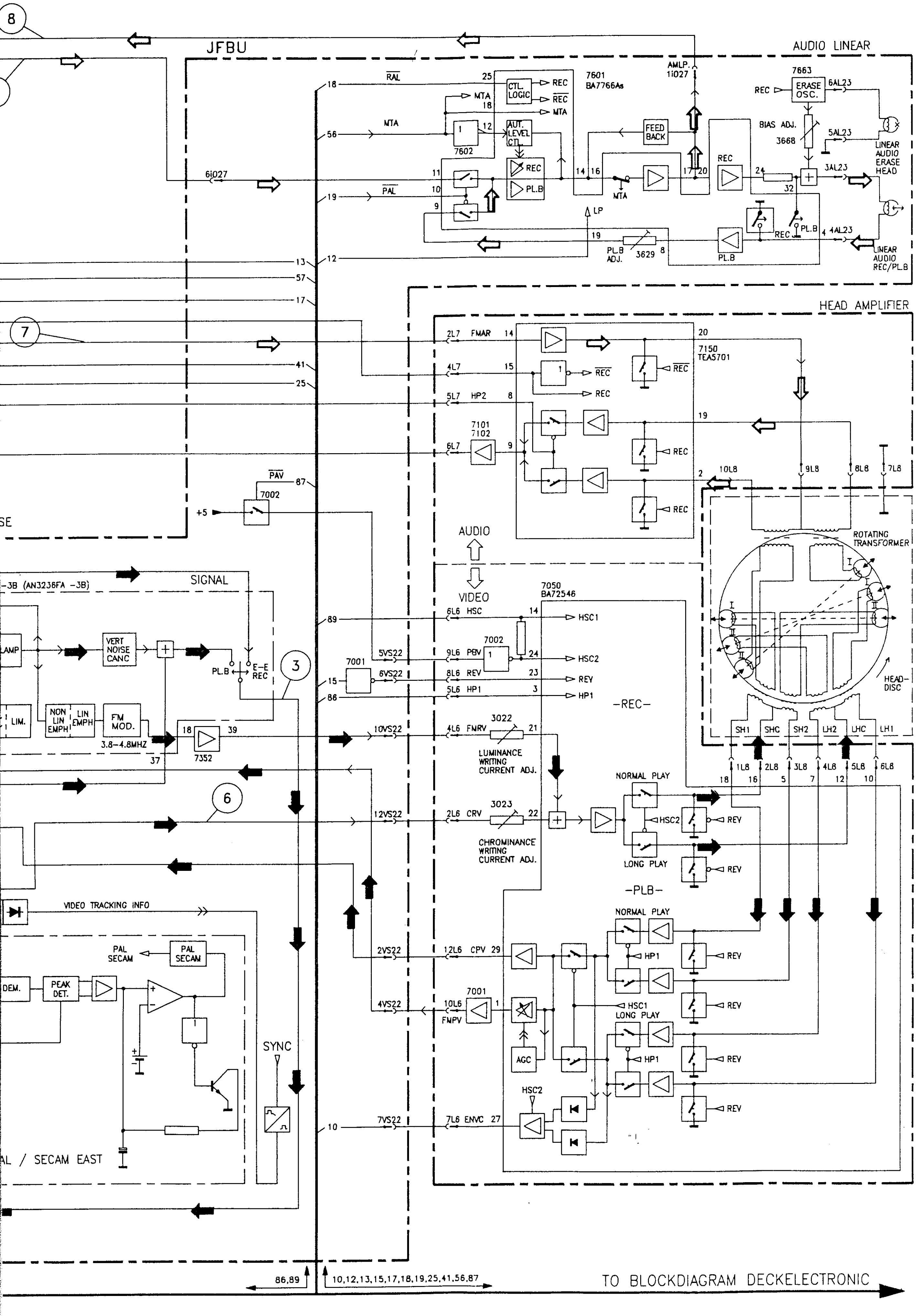

JAF
7608
PAV
PAF
6203
PAV*
MUTE
SA0
3213
3212
16
13
-LEFT CHA
AFV3
1AF17
6AF15
24
79
80
19
20
SA01
SA02
LOGIC
C01
C02
PB
SWITCH SELECTION
AUDIO EXTERNAL SOURCE SELEKTION
7333 4052
SC2 IN L
SC1 IN L
AFV1
CI IN L
SC2 IN R
SC1 IN R
AFV2
CI IN R
LOGIC
9
10
12
13
LEFT
RIGHT
7322
7422
7023
7531-B 4052
ALFR
ALFP
AMCO
ARFP
ARFR
58
55
59
6AF17
11
10
MUTE
7002 7003
7102 7103
A
B
D
C
23
26
6
AGC
7
3068-2A MANUAL CONTROL
5AF12
6AF12
7AF12
+5
7607
7609
MTA
82
PAL
1AF13
20
SAI1
SAI2
72
73
7211 7212
DL2
MAAL
74
78
21
22
31
- RIGHT C
7635 4094
8-STAGE SHIFT REGISTER
ESS1
ESS2
SAI1
SAI2
DL2
MAAL
SA01
SA02
76
77
CLCK
DATA
STR
6AF13
5AF13
4AF13
23
28
21
7531-A 4052
SC2 IN
SC1 IN
7AF16
VFV
LOGIC
7521
ESS1
ESS2
JCO_VPT
2
3AF16
5i028
5i030
3C04
7785 AN3916
7795
OPRI* DATA
BLANK
7512
4
7516
8AF15
9AF15
2AF13
3AF13
85
84
39
40
1AF16
7i028
1i030
7C04
7780 SAA5231
6MHz
VIDEO IN
VIDEO PROCESSOR
TTD
TTC
VCS
SAND
TCS
7760 SAA5243 P/E
6MHz BLANK
COMPUTER CONTROLLED TELETEXT
7770 KM6264
RAM
8k x 8
7790 MC1377
RGB ENCODER
R
G
B
VIDEO OUT
3FV24
iF
60
1i028
VPS-DECODER
7710 SDA 5642
VIDEOIN
SCL
SDA
7740 TDA3842
1702
VIDEO DET.
VFV
IF-AGC
RF-AGC
AFC DET.
2747
3747
RF-AGC
7515
1501 GROUP DELAY FILTER
NOT FOR PALi
7796
OPRI* DATA
FP* STROBE
FP*/STROBE
OPRI*/DAT
3
6DE20
7DE15
5DE20
8DE15
3i027
85
50
84
49
55
*ONLY FOR TELETEXT
PLAYBACK VIDEO
PLAYBACK AUDIO

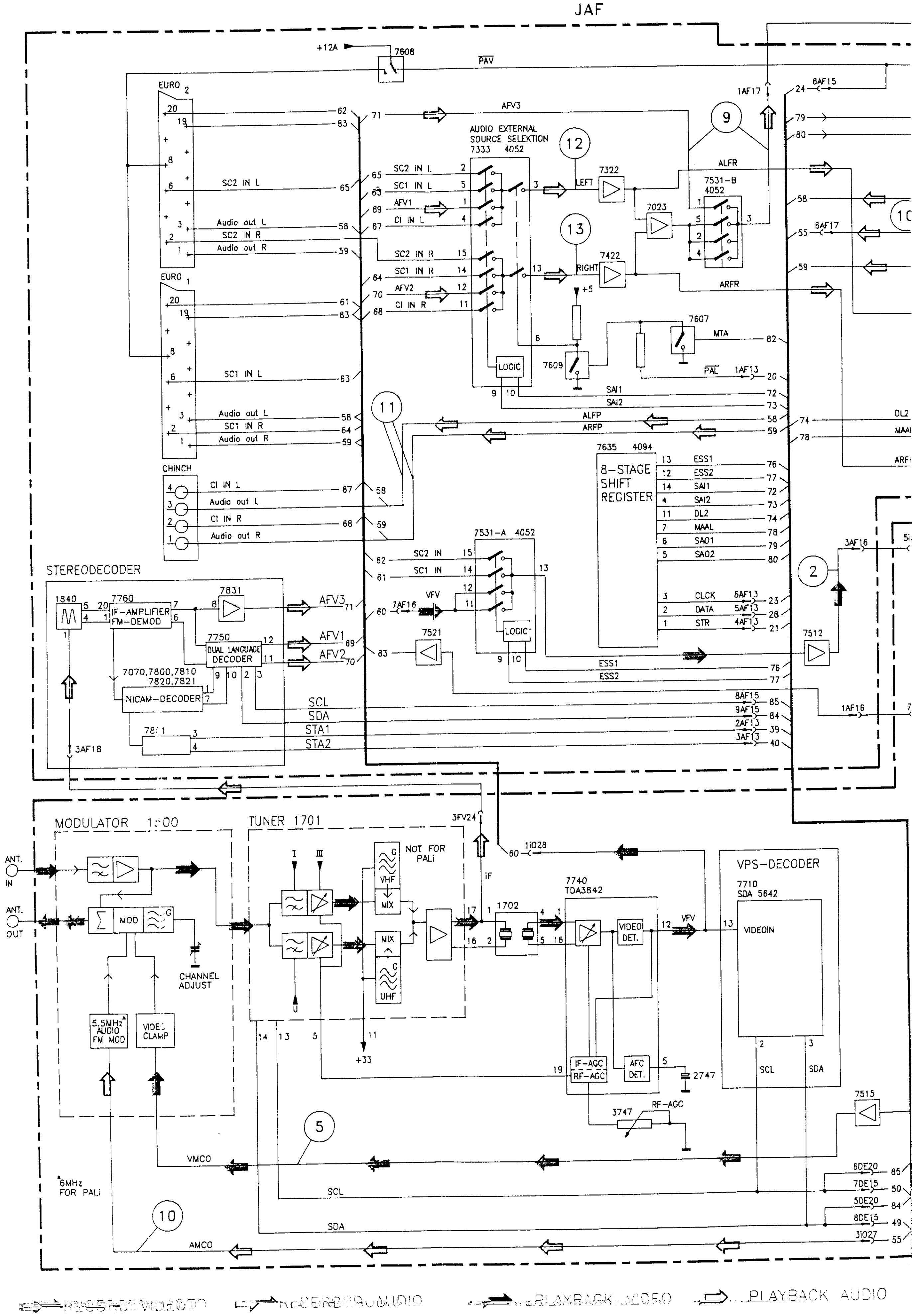
th VPT


HIFI AUDIO
part o
PAF
6203
PAV
SAO
3213
3212
16
19
20
SA01
SA02
LOGIC
C01
C02
PB
MUTE
13
AMLP
6AF17
14
7205
AN3972
-LEFT CHANNEL-
SWITCH SELECTION
LIN
RIGHT
LEFT
STEREO L
STEREO R
7002
7003
11
AMCO
23
26
A
B
C
D
7102
7103
ALFR
6
AGC
NOISE REDUCTION SYSTEM
20kHz
3068-2A
MANUAL CONTROL
5AF12
6AF12
7AF12
7
21
22
31
- RIGHT CHANEL -
7001
1/2 POWER COMPRESSION
4
8
7208
BA6138
1AF14
3AF14
ALLI
ARLI
8DC2
6DC2
4AF14
8AF14
6AF14
5DC2
1DC2
3DC2
7207 NJM4556
12
25
5
3
ALHP
ARHP
MUTE
7206
18
CAHL
SAO
PAV
7202 (TDA2515)
1.4MHz
3004
CENTER FREQ.
3008
RECORD LEVEL
3210
FM MAX. SWEEP
3026
PLAY-BACK LEVEL
9
23
16
LIM
FM MODE 1.4MHz
SAMPLE AND HOLD
FM DEMOD
&
MUTE
39
38
32
36
35
JCO_VPT
7785
AN3916
3C04
7795
13
12
14
11
OPRI
DATA
1
2
15
BLANK
10
5
3
4
9
1C04
7780
SAA5231
VIDEO IN
VIDEO PROCESSOR
6MHz
TTD
TTC
VCS
SAND
TCS
7760
SAA5243 P/E
BLANK
COMPUTER CONTROLLED TELETEXT
7770
KM6264
RAM
8k x 8
7790
MC1377
RGB ENCODER
R
G
B
VIDEO OUT
7C04
7796
FP STROBE
FP*/STROBE
OPRI*/DAT
44
45
5C04
86
88
89
9YS22
8YS22
HP1
HSC
7104
9C03
N.C.
1DE12
7109
3J030
7J030
7051 -3A (AN3236FA -3A)
46
SYNC SEP.
AGC
REC
PLB
7351 ÷ 7355
PLB-AMP. +PLB BANDPASS
19
LIM-ITER
FM DET.
48
3MHz
DETAIL-ENH-REC.
NON LIN.-DEEMPH PL.B
DROP OUT DET.
44
4.43MHz
PB
CK
PAL
SECAM
COMB FILTER
+18dB
BYERST EMPH. DEEMP.
M
4Ø
0°
90°
180°
270°
:8
PULSE GEN.
AFC MISLOCK
APC MISLOCK
COUNT DOWN
5.015625MHz
AFC
APC
3126 CHROMA VCO
44,45,86,88,89
2
3
4
11

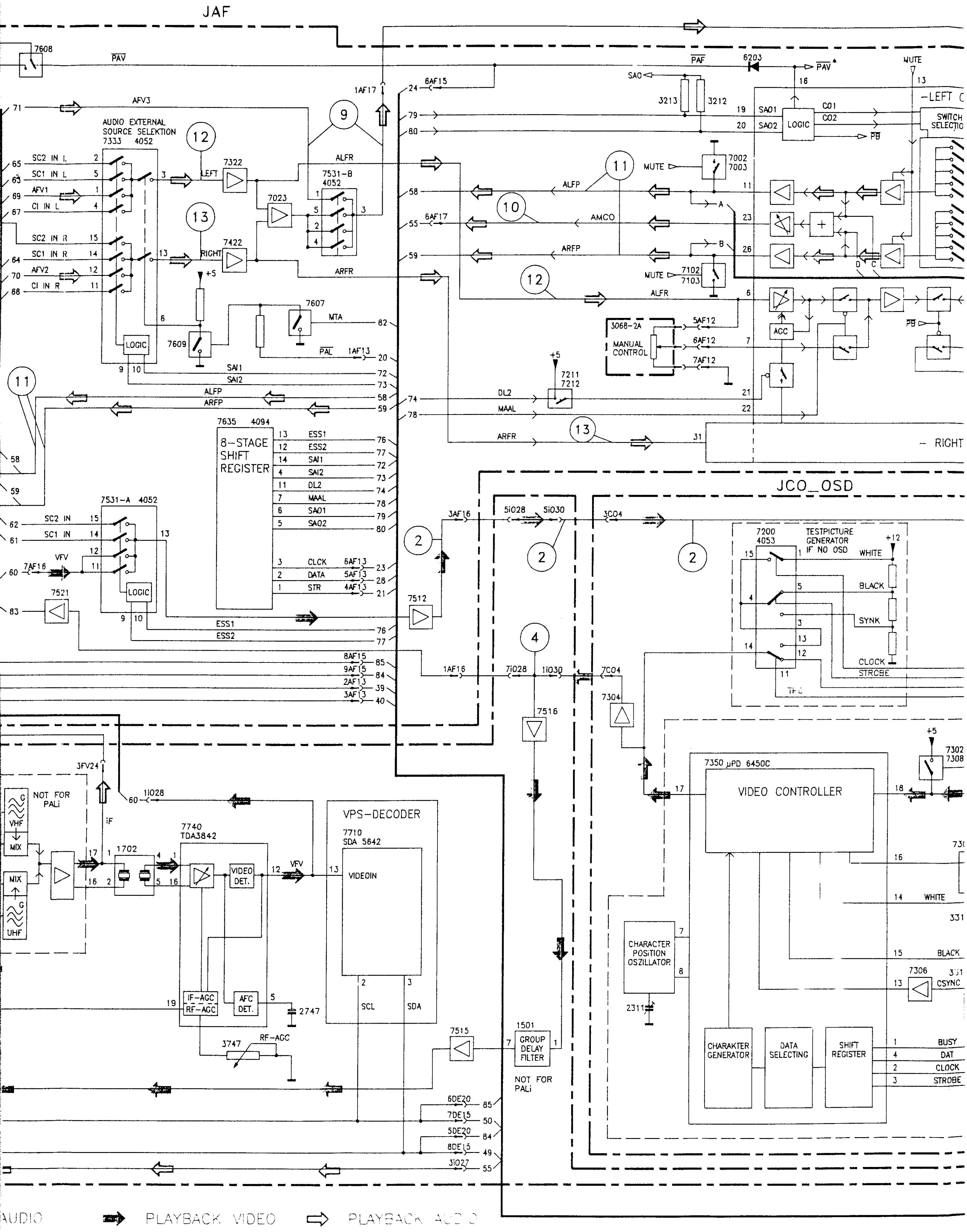
*ONLY FOR TELETEXT


8
9
JFBU
HIFI AUDIO
part of (OPER.AND DISPLAY)
7001
1/2 POWER COMPRESSION
1/2 POWER COMPRESSION
7208
BA6138
1AF14
3AF14
ALLI
ARU
8DC2
6DC2
3092
3090
AUDIO-BAR IN FLUORISENT DISPLAY
7207 NJM4556
4AF14
8AF14
6AF14
ALHP
ARHP
LEVEL HEADPHONE
HEADPHONE-JACK
5DC2
1DC2
3DC2
MUTE
7206
CAHL
61027
SAO
PAV
7202 (TDA2515)
MTA
+12a
7AF15
7213
7203
7204
MUTE
RAF
4AF15
4AF11
1.4MHz
3004
CENTER FREQ.
3008
RECORD LEVEL
LIM
FM MODE 1.4MHz
WRITING CURRENT
7201
FMAR
6AF11
7
MUTE
TRIA
5AF15
3210
FM MAX. SWEEP
HP2
3AF15
3AF11
SAMPLE AND HOLD
FM DEMOD
LIM
1.4MHz
3026
PLAY-BACK LEVEL
FMAP
2AF11
1.8MHz
JFBU/SE
PAV
7002
+5
- LUMINANCE -
7051 -3A (AN3236FA -3A)
SYNC SEP.
AGC
REC
PL.B
3080
NOISE REDUC. LEVEL
LPS PANEL
7251 AN3494NK
7051 -3B (AN3236FA -3B)
SIGNAL
7351 ÷ 7355
PLB-AMP.-+PLB BANDPASS
LIM-ITER
FM DET.
3MHz
DETAIL-ENH-REC.
NON LIN.-DEEMPH PL.B
LINE NOISE CANC
HOR NOISE CANC
DROP-OUT COMPENS.
CLAMP
VERT NOISE CANC
PL.B
E-E REC
3
DROP OUT DET.
LIM.
NON LIN EMPH
LIN EMPH
FM MOD.
3.8-4.8MHZ
7352
3072
DROP-OUT LEVEL ADJ.
7014
7052
CCD DELAY 64uS
- CHROMINANCE -
6
REC
PB
4.43MHz
PB
REC
PB
REC
CK
1.6MHz
PAL
SECAM
COMB FILTER
+18dB
BVERST EMPH. DEEMP.
M
CK
627kHz
VIDEO TRACKING INFO
HP1
HSC
7104
HP1
4Ø
0°
90°
180°
270°
5.06MHz
M
627kHz
4.43MHz
PAL SECAM
PAL SECAM
+5a
BURST GATE
DEM.
PEAK DET.
:8
PULSE GEN.
AFC MISLOCK
APC MISLOCK
MISLOCK OUT
SUB. CONV.
SYNC
REC
PB
AFC
APC
COUNT DOWN
5.015625MHz
4.43MHz
3126 CHROMA VCO
SECAM IDENT FOR PAL / SECAM EAST
86,89
10

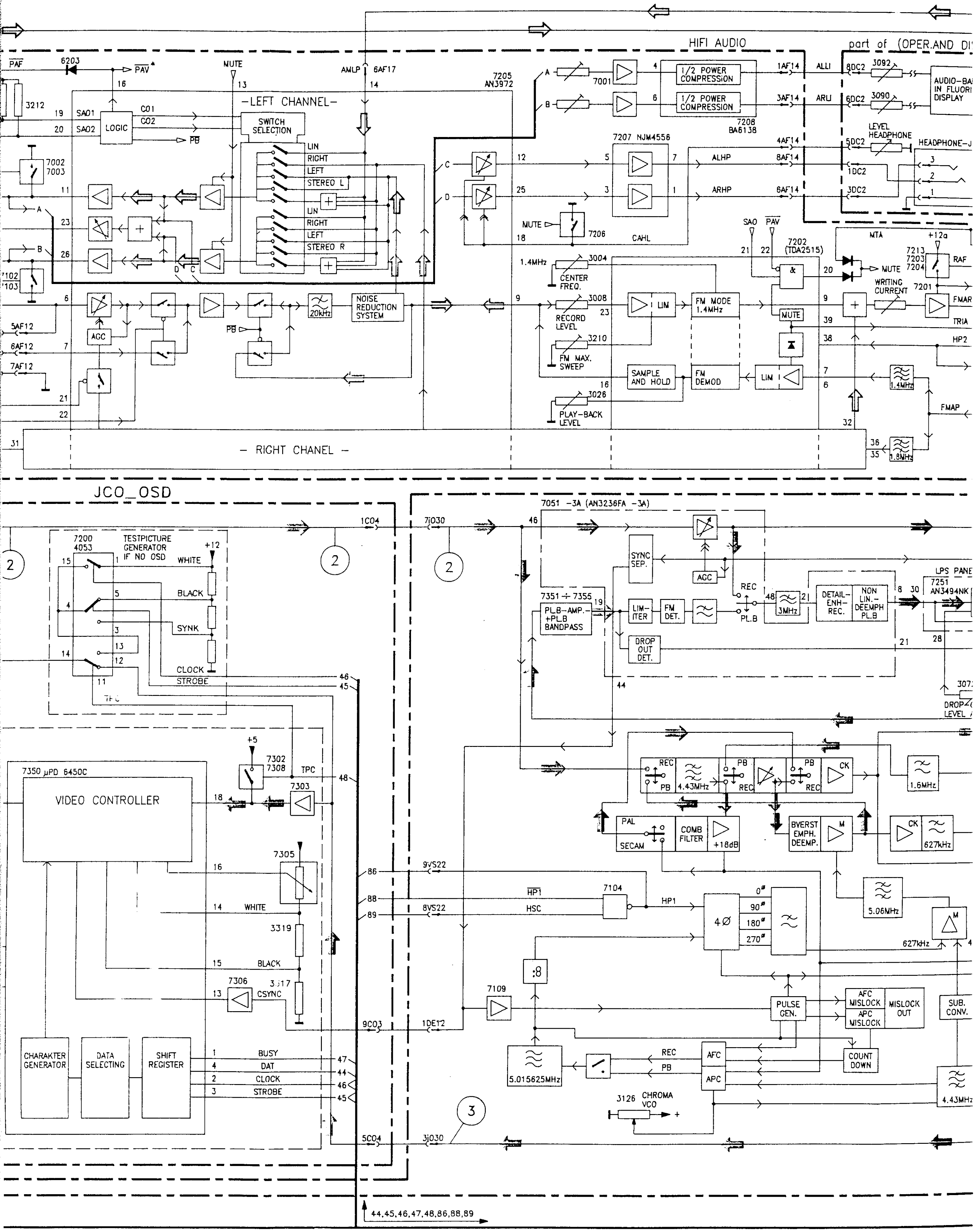

8
JFBU
AUDIO LINEAR
RAL
MTA
PAL
25
18
56
19
12
6I027
7601
BA7766As
CTL. LOGIC
REC
REC
MTA
AUT. LEVEL CTL.
7602
REC
PL.B
11
10
9
14 16
17 20
24
32
LP
19
PL.B ADJ.
3629
8
AMLP.
1I027
FEED BACK
REC
7663
ERASE OSC.
6AL23
BIAS ADJ.
3668
5AL23
3AL23
LINEAR AUDIO ERASE HEAD
PL.B
4AL23
LINEAR AUDIO REC/PL.B
13
57
17
41
25
87
PAV
7002
+5
7
HEAD AMPLIFIER
2L7 FMAR 14
4L7 15
5L7 HP2 8
6L7 9
7101
7102
20
7150
TEA5701
19
2
10L8
9L8
8L8
7L8
ROTATING TRANSFORMER
HEAD-DISC
SH1 SHC SH2 LH2 LHC LH1
1L8 2L8 3L8 4L8 5L8 6L8
18 16 5 7 12 10
AUDIO
VIDEO
7050
BA72546
6L6 HSC 14
HSC1
9L6 PBV 24
HSC2
8L6 REV 23
REV
5L6 HP1 3
HP1
-REC-
7002
7001
5VS22
6VS22
89
15
86
SIGNAL
-3B (AN3236FA -3B)
LAMP
VERT NOISE CANC
PL.B
E-E REC
3
LIM.
NON LIN EMPH
LIN EMPH
FM MOD.
3.8-4.8MHZ
18
39
37
7352
10VS22
4L6 FMRV
3022
21
LUMINANCE WRITING CURRENT ADJ.
6
12VS22
2L6 CRV
3023
22
CHROMINANCE WRITING CURRENT ADJ.
NORMAL PLAY
LONG PLAY
HSC2
REV
-PLB-
VIDEO TRACKING INFO
PAL SECAM
DEM.
PEAK DET.
2VS22
12L6 CPV 29
4VS22
10L6 FMPV
7001
1
AGC
HSC1
HP1
SYNC
HSC2
10
7VS22
7L6 ENVC 27
AL / SECAM EAST
86,89
10,12,13,15,17,18,19,25,41,56,87
TO BLOCKDIAGRAM DECKELECTRONIC

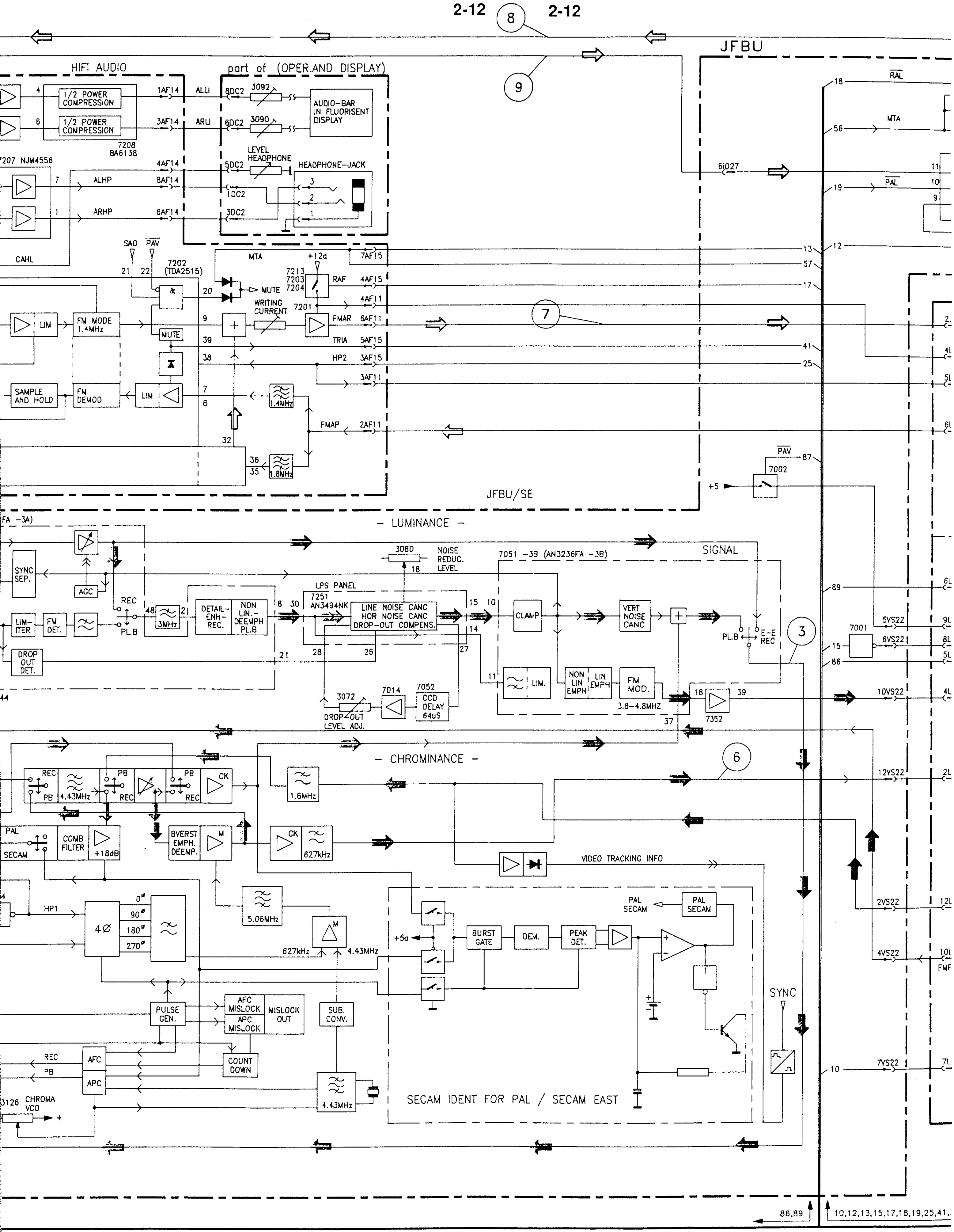

JAF
+12A
7608
PAV
EURO 2
EURO 1
CHINCH
SC2 IN L
Audio out L
SC2 IN R
Audio out R
SC1 IN L
SC1 IN R
CI IN L
CI IN R
AFV3
AFV1
AFV2
AUDIO EXTERNAL SOURCE SELEKTION
7333 4052
LOGIC
7322
7422
LEFT
RIGHT
7023
7531-B 4052
ALFR
ARFR
7607
MTA
7609
PAL
SAI1
SAI2
ALFP
ARFP
7635 4094
8-STAGE SHIFT REGISTER
ESS1
ESS2
SAI1
SAI2
DL2
MAAL
SA01
SA02
CLCK
DATA
STR
7531-A 4052
SC2 IN
SC1 IN
VFV
7521
7512
STEREODECODER
1840
7760
IF-AMPLIFIER FM-DEMOD
7831
7750
DUAL LANGUAGE DECODER
7070,7800,7810 7820,7821
NICAM-DECODER
7811
SCL
SDA
STA1
STA2
3AF18
1AF17
6AF15
6AF17
3AF16
1AF16
6AF13
5AF13
4AF13
1AF13
7AF16
8AF15
9AF15
2AF13
3AF13
MODULATOR 1500
ANT. IN
ANT. OUT
MOD
CHANNEL ADJUST
5.5MHz AUDIO FM MOD
VIDEO CLAMP
6MHz FOR PALi
TUNER 1701
VHF
UHF
MIX
NOT FOR PALi
+33
3FV24
iF
1i028
1702
7740 TDA3842
VIDEO DET.
IF-AGC
RF-AGC
AFC DET.
2747
3747
RF-AGC
VPS-DECODER
7710 SDA 5642
VIDEOIN
SCL
SDA
7515
VMCO
AMCO
6DE20
7DE15
5DE20
8DE15
3i027
⑤
⑨
⑩
⑪
⑫
⑬
②
RECORD VIDEO
RECORD AUDIO
PLAYBACK VIDEO
PLAYBACK AUDIO

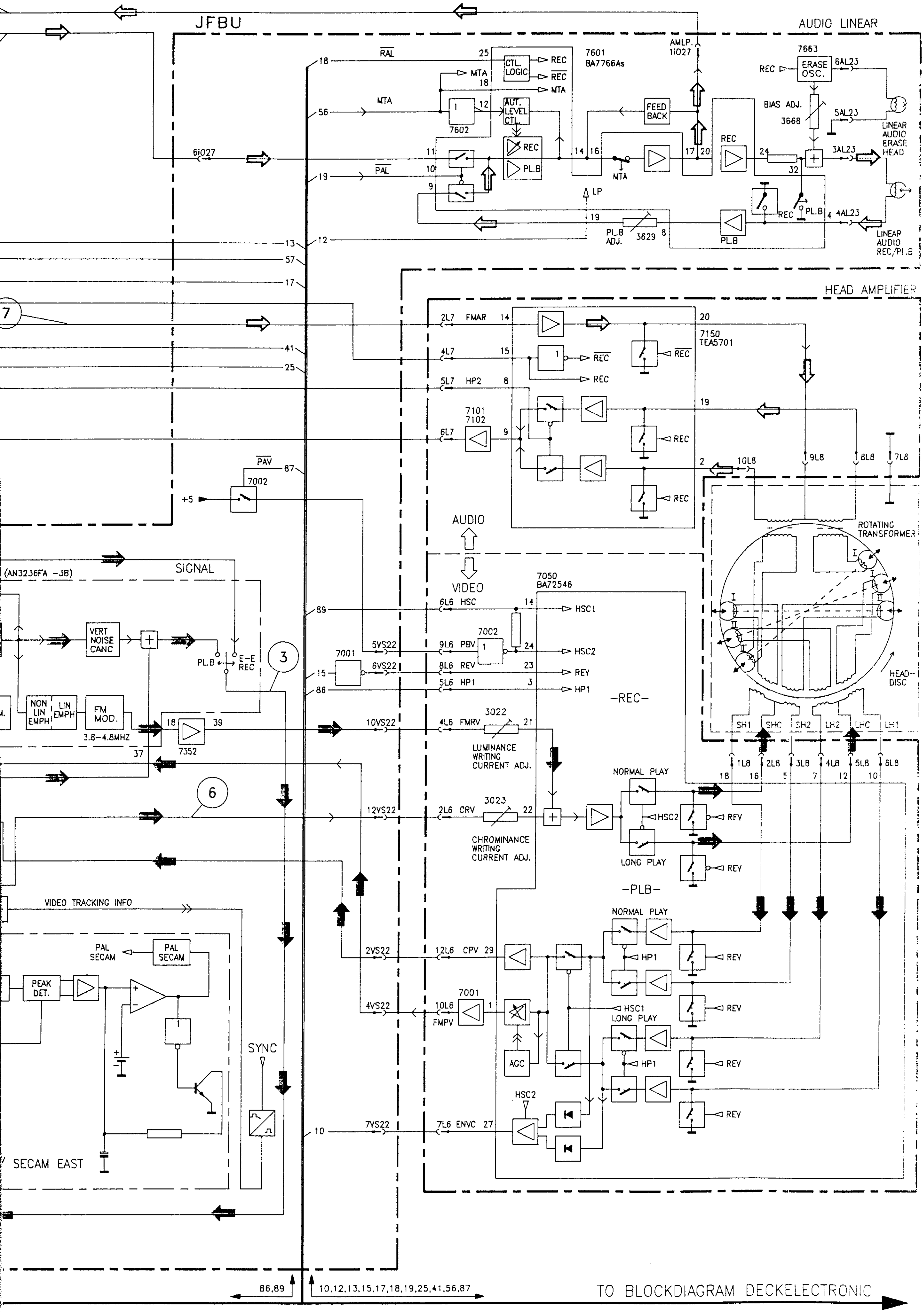
BLOCKDIAGRAM SIGNALELECTRONIC with OSD

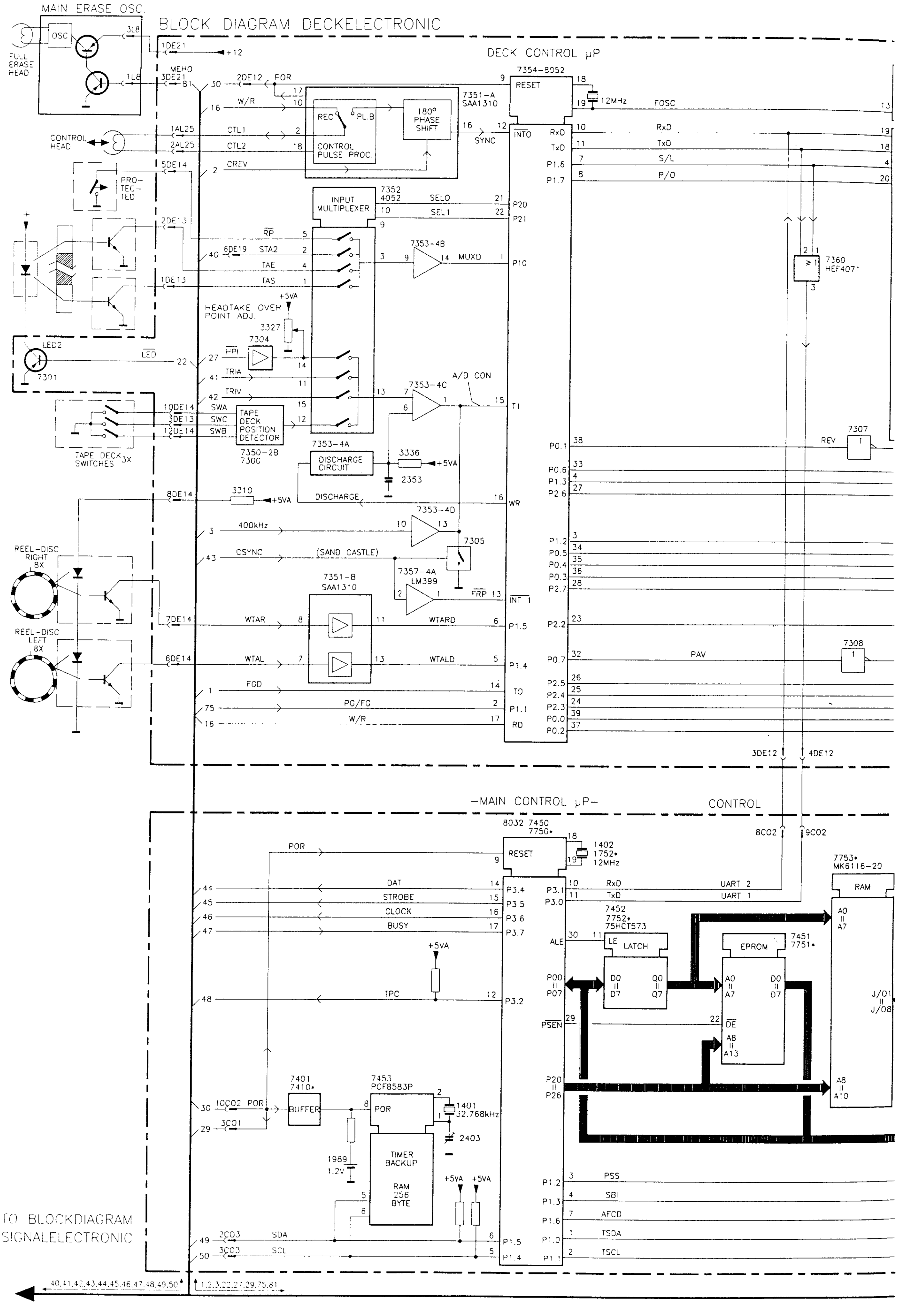


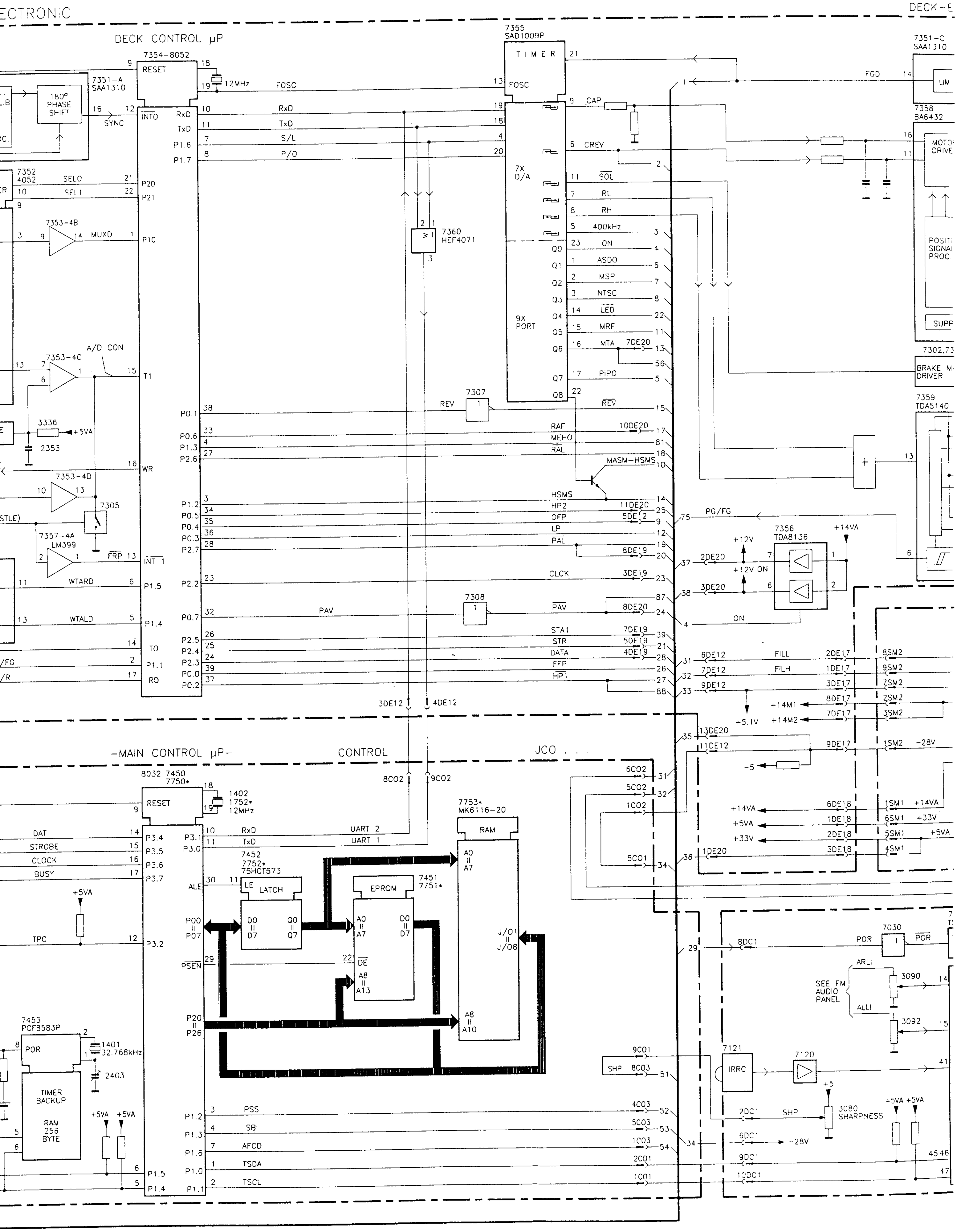
JAF
7608
PAV
PAF
6203
PAV
MUTE
SAO
3213
3212
16
13
19
20
SA01
SA02
LOGIC
C01
C02
PB
-LEFT C
SWITCH SELECTIO
71
AFV3
1AF17
24
6AF15
79
80
AUDIO EXTERNAL SOURCE SELEKTION
7333 4052
9
12
65 SC2 IN L
63 SC1 IN L
69 AFV1
67 CI IN L
2
5
1
4
3
7322
LEFT
ALFR
7531-B 4052
7023
13
SC2 IN R 15
64 SC1 IN R 14
70 AFV2 12
68 CI IN R 11
RIGHT
7422
ARFR
+5
7607
MTA
82
7609
LOGIC
6
PAL
1AF13
20
9 10
SAI1 72
SAI2 73
11
ALFP 58
ARFP 59
58
59
MUTE
7002 7003
ALFP
11
10
AMCO
6AF17
55
23
A
B
ARFP
26
7102 7103
D C
ALFR
ACC
3068-2A
MANUAL CONTROL
5AF12
6AF12
7AF12
7
PB
7211 7212
DL2
74
78
MAAL
21
22
ARFR
31
- RIGHT
7635 4094
8-STAGE SHIFT REGISTER
13 ESS1 76
12 ESS2 77
14 SAI1 72
4 SAI2 73
11 DL2 74
7 MAAL 78
6 SA01 79
5 SA02 80
3 CLCK 6AF13 23
2 DATA 5AF13 28
1 STR 4AF13 21
7531-A 4052
62 SC2 IN 15
61 SC1 IN 14
12
VFV
60 7AF16
11
LOGIC
13
7521
83
ESS1
ESS2
76
77
8AF15 85
9AF15 84
2AF15 39
3AF13 40
7512
3AF16
5I028
5I030
2
3C04
JCO_OSD
7200 4053
TESTPICTURE GENERATOR IF NO OSD
+12
WHITE
BLACK
SYNK
CLOCK
STROBE
TFC
15
1
5
4
3
13
14
12
11
4
1AF16
7I028
1I030
7C04
7304
7516
+5
7302 7308
7350 μPD 6450C
VIDEO CONTROLLER
17
18
16
14 WHITE
15 BLACK
13 CSYNC
7306
CHARACTER POSITION OSZILLATOR
7
8
2311
CHARAKTER GENERATOR
DATA SELECTING
SHIFT REGISTER
1 BUSY
4 DAT
2 CLOCK
3 STROBE
3FV24
NOT FOR PALi
VHF
MIX
MIX
UHF
iF
60
1I028
17
1702
16
2
7740 TDA3842
4
5
16
VIDEO DET.
12
VFV
13
IF-AGC
RF-AGC
19
AFC DET.
5
2747
3747
RF-AGC
VPS-DECODER
7710 SDA 5642
VIDEOIN
2 SCL
3 SDA
7515
1501
GROUP DELAY FILTER
7
1
NOT FOR PALi
6DE20 85
7DE15 50
5DE20 84
8DE15 49
3I027 55
AUDIO
PLAYBACK VIDEO
PLAYBACK AUDIO

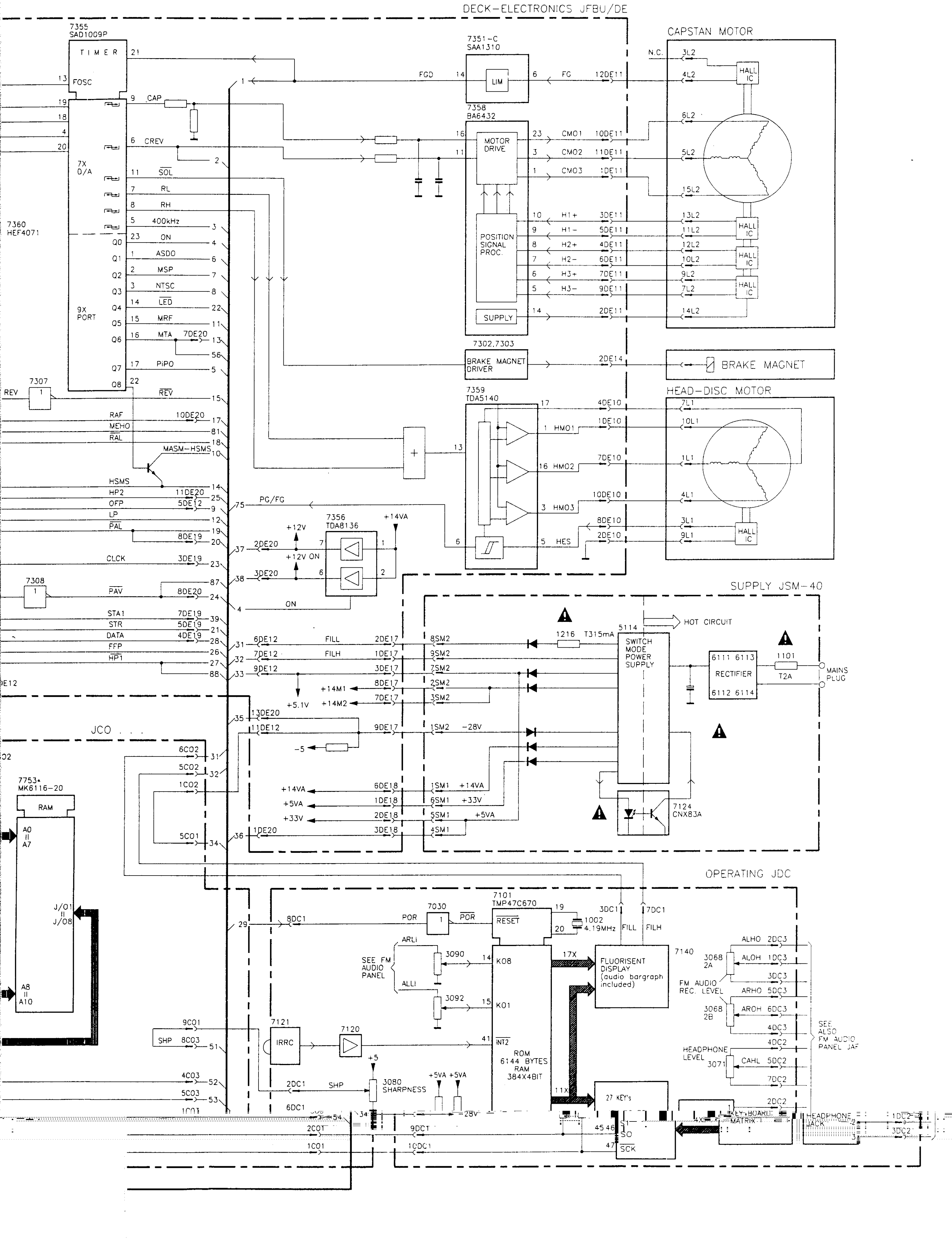

HIFI AUDIO
part of (OPER.AND DI
PAF
6203
PAV
MUTE
AMLP
6AF17
7205
AN3972
3212
SA01
SA02
LOGIC
C01
C02
PB
-LEFT CHANNEL-
SWITCH SELECTION
LIN
RIGHT
LEFT
STEREO L
STEREO R
7002
7003
7102
7103
5AF12
6AF12
7AF12
AGC
20kHz
NOISE REDUCTION SYSTEM
- RIGHT CHANEL -
7001
1/2 POWER COMPRESSION
7208
BA6138
1AF14
3AF14
ALLI
ARLI
8DC2
6DC2
3092
3090
AUDIO-BA IN FLUORI DISPLAY
LEVEL HEADPHONE
HEADPHONE-J
7207 NJM4556
ALHP
ARHP
4AF14
8AF14
6AF14
5DC2
1DC2
3DC2
MUTE
7206
CAHL
SA0
PAV
7202 (TDA2515)
MTA
+12a
7213
7203
7204
RAF
1.4MHz
3004
CENTER FREQ.
3008
RECORD LEVEL
3210
FM MAX. SWEEP
3026
PLAY-BACK LEVEL
LIM
FM MODE 1.4MHz
SAMPLE AND HOLD
FM DEMOD
MUTE
WRITING CURRENT
7201
FMAR
TRIA
HP2
FMAP
1.4MHz
1.8MHz
JCO_OSD
7200
4053
TESTPICTURE GENERATOR IF NO OSD
+12
WHITE
BLACK
SYNK
CLOCK
STROBE
7FC
1C04
7J030
7051 -3A (AN3236FA -3A)
SYNC SEP.
AGC
REC
PL.B
7351 ÷ 7355
PLB-AMP. +PLB BANDPASS
LIM-ITER
FM DET.
DROP OUT DET.
3MHz
DETAIL-ENH-REC.
NON LIN.-DEEMPH PL.B
LPS PANE
7251
AN3494NK
307
DROP LEVEL
+5
7302
7308
TPC
7303
7350 µPD 6450C
VIDEO CONTROLLER
7305
WHITE
3319
BLACK
7306
3317
CSYNC
CHARAKTER GENERATOR
DATA SELECTING
SHIFT REGISTER
BUSY
DAT
CLOCK
STROBE
9VS22
8VS22
HP1
HSC
7104
9C03
1DE12
5C04
3J030
PB
4.43MHz
CK
1.6MHz
PAL
SECAM
COMB FILTER
+18dB
BVERST EMPH. DEEMP.
M
627kHz
5.06MHz
4Ø
0°
90°
180°
270°
:8
7109
PULSE GEN.
AFC MISLOCK
APC MISLOCK
MISLOCK OUT
SUB. CONV.
5.015625MHz
AFC
APC
COUNT DOWN
3126 CHROMA VCO
4.43MHz
44,45,46,47,48,86,88,89


8
9
JFBU
HIFI AUDIO
part of (OPER.AND DISPLAY)
1/2 POWER COMPRESSION
1/2 POWER COMPRESSION
7208
BA6138
7207 NJM4556
1AF14
3AF14
4AF14
8AF14
6AF14
ALLI
ARLI
ALHP
ARHP
CAHL
8DC2
6DC2
5DC2
1DC2
3DC2
3092
3090
AUDIO-BAR IN FLUORISENT DISPLAY
LEVEL HEADPHONE
HEADPHONE-JACK
SAO
PAV
7202 (TDA2515)
MTA
+12a
7213
7203
7204
RAF
MUTE
WRITING CURRENT
7201
FMAR
TRIA
HP2
FMAP
7AF15
4AF15
4AF11
6AF11
5AF15
3AF15
3AF11
2AF11
FM MODE 1.4MHz
LIM
SAMPLE AND HOLD
FM DEMOD
1.4MHz
1.8MHz
7
JFBU/SE
6i027
RAL
PAL
PAV
7002
+5
- LUMINANCE -
SYNC SEP.
AGC
REC
PL.B
LIMITER
FM DET.
DROP OUT DET.
3MHz
DETAIL-ENH-REC.
NON LIN.-DEEMPH PL.B
3080
NOISE REDUC. LEVEL
LPS PANEL
7251
AN3494NK
LINE NOISE CANC
HOR NOISE CANC
DROP-OUT COMPENS.
7051 -3B (AN3236FA -3B)
SIGNAL
CLAMP
VERT NOISE CANC
E-E REC
3
LIM.
NON LIN EMPH
LIN EMPH
FM MOD.
3.8-4.8MHZ
3072
DROP-OUT LEVEL ADJ.
7014
7052
CCD DELAY 64uS
7352
7001
5VS22
6VS22
10VS22
12VS22
2VS22
4VS22
7VS22
- CHROMINANCE -
6
4.43MHz
CK
1.6MHz
PAL
SECAM
COMB FILTER
+18dB
BVERST EMPH. DEEMP.
M
627kHz
VIDEO TRACKING INFO
HP1
4Ø
0°
90°
180°
270°
5.06MHz
627kHz
4.43MHz
+5a
BURST GATE
DEM.
PEAK DET.
PAL SECAM
PULSE GEN.
AFC MISLOCK
APC MISLOCK
MISLOCK OUT
SUB. CONV.
COUNT DOWN
AFC
APC
REC
PB
3126 CHROMA VCO
SYNC
SECAM IDENT FOR PAL / SECAM EAST
86,89
10,12,13,15,17,18,19,25,41,


JFBU
AUDIO LINEAR
RAL
25
CTL. LOGIC
REC
REC
MTA
7601
BA7766As
AMLP.
1i027
7663
ERASE OSC.
REC
6AL23
MTA
18
56
12
AUT. LEVEL CTL.
FEED BACK
BIAS ADJ.
3668
5AL23
LINEAR AUDIO ERASE HEAD
7602
REC
PL.B
6i027
11
10
9
14
16
17
20
24
32
3AL23
19
PAL
MTA
LP
PL.B
REC
4AL23
19
PL.B ADJ.
3629
8
4
PL.B
LINEAR AUDIO REC/PL.B
13
57
17
12
7
41
25
HEAD AMPLIFIER
2L7 FMAR 14
20
7150
TEA5701
4L7
15
REC
REC
REC
5L7 HP2 8
7101
7102
19
6L7
9
REC
2
10L8
9L8
8L8
7L8
REC
PAV
87
7002
+5
AUDIO
VIDEO
ROTATING TRANSFORMER
7050
BA72546
(AN3236FA -3B)
SIGNAL
89
6L6 HSC 14
HSC1
VERT NOISE CANC
7002
5VS22
9L6 PBV
24
HSC2
PL.B
E-E
REC
3
7001
15
6VS22
8L6 REV
23
REV
86
5L6 HP1
3
HP1
-REC-
HEAD-DISC
NON LIN EMPH
LIN EMPH
FM MOD.
3.8-4.8MHZ
18
39
7352
37
10VS22
4L6 FMRV
3022
21
LUMINANCE WRITING CURRENT ADJ.
SH1
SHC
SH2
LH2
LHC
LH1
1L8
2L8
3L8
4L8
5L8
6L8
18
16
5
7
12
10
NORMAL PLAY
6
12VS22
2L6 CRV
3023
22
CHROMINANCE WRITING CURRENT ADJ.
HSC2
REV
LONG PLAY
REV
-PLB-
VIDEO TRACKING INFO
NORMAL PLAY
PAL SECAM
PAL SECAM
2VS22
12L6 CPV 29
HP1
REV
PEAK DET.
7001
4VS22
10L6 FMPV
1
HSC1
LONG PLAY
REV
ACC
HP1
REV
SYNC
HSC2
7VS22
7L6 ENVC 27
10
REV
SECAM EAST
86,89
10,12,13,15,17,18,19,25,41,56,87
TO BLOCKDIAGRAM DECKELECTRONIC


BLOCK DIAGRAM DECKELECTRONIC
MAIN ERASE OSC.
OSC
FULL ERASE HEAD
3L8
1L8
1DE21
+12
MEHO
3DE21
81
DECK CONTROL µP
30
2DE12
POR
7354-8052
RESET
9
18
12MHz
19
FOSC
13
17
10
16
W/R
7351-A
SAA1310
REC
PL.B
180° PHASE SHIFT
CONTROL PULSE PROC.
16
12
SYNC
INT0
RxD
TxD
P1.6
P1.7
RxD
TxD
S/L
P/O
CONTROL HEAD
1AL25
2AL25
CTL1
CTL2
2
18
5DE14
CREV
PRO-TEC-TED
2DE13
1DE13
INPUT MULTIPLEXER
7352
4052
SELO
SEL1
21
22
P20
P21
RP
6DE19
STA2
40
TAE
TAS
7353-4B
9
14
MUXD
P10
+5VA
HEADTAKE OVER POINT ADJ.
3327
7304
LED2
LED
22
27
HPI
7301
41
TRIA
42
TRIV
7353-4C
A/D CON
T1
10DE14
3DE13
12DE14
SWA
SWC
SWB
TAPE DECK POSITION DETECTOR
TAPE DECK SWITCHES
3X
7350-2B
7300
7353-4A
DISCHARGE CIRCUIT
3336
+5VA
2353
8DE14
3310
+5VA
DISCHARGE
16
WR
7353-4D
3
400kHz
43
CSYNC
(SAND CASTLE)
7305
7357-4A
LM399
FRP
13
INT 1
REEL-DISC RIGHT 8X
REEL-DISC LEFT 8X
7351-B
SAA1310
7DE14
WTAR
WTARD
6
P1.5
6DE14
WTAL
WTALD
5
P1.4
1
FGD
14
T0
75
PG/FG
P1.1
16
W/R
17
RD
P0.1
38
REV
7307
P0.6
P1.3
P2.6
33
4
27
P1.2
P0.5
P0.4
P0.3
P2.7
3
34
35
36
28
P2.2
23
P0.7
32
PAV
7308
P2.5
P2.4
P2.3
P0.0
P0.2
26
25
24
39
37
7360
HEF4071
≥1
3DE12
4DE12
-MAIN CONTROL µP-
CONTROL
8032 7450
7750*
RESET
18
19
1402
1752*
12MHz
8CO2
9CO2
POR
44
45
46
47
DAT
STROBE
CLOCK
BUSY
P3.4
P3.5
P3.6
P3.7
P3.1
P3.0
RxD
TxD
UART 2
UART 1
7753*
MK6116-20
RAM
A0 II A7
7452
7752*
75HCT573
ALE
30
11
LE
LATCH
EPROM
7451
7751*
+5VA
48
TPC
12
P3.2
P00 II P07
D0 II D7
Q0 II Q7
A0 II A7
D0 II D7
J/01 II J/08
PSEN
29
22
DE
A8 II A13
7401
7410*
7453
PCF8583P
P20 II P26
A8 II A10
30
10CO2
POR
BUFFER
8
POR
2
1401
32.768kHz
29
3CO1
2403
TIMER BACKUP
1989
1.2V
RAM 256 BYTE
+5VA
+5VA
PSS
SBI
AFCD
TSDA
TSCL
P1.2
P1.3
P1.6
P1.0
P1.1
TO BLOCKDIAGRAM SIGNALELECTRONIC
49
2CO3
SDA
P1.5
50
3CO3
SCL
P1.4
40,41,42,43,44,45,46,47,48,49,50
1,2,3,22,27,29,75,81


ECTRONIC
DECK-E
DECK CONTROL µP
7354-8052
RESET
12MHz
7351-A SAA1310
180° PHASE SHIFT
SYNC
INT0
RxD
TxD
P1.6
P1.7
FOSC
S/L
P/O
7352 4052
SEL0
SEL1
7353-4B
MUXD
7353-4C
A/D CON
3336
+5VA
2353
WR
7353-4D
7305
STLE)
7357-4A LM399
FRP
INT 1
WTARD
WTALD
T0
T1
/FG
/R
RD
P0.1
P0.6
P1.3
P2.6
P1.2
P0.5
P0.4
P0.3
P2.7
P2.2
P0.7
P2.5
P2.4
P2.3
P0.0
P0.2
7355 SAD1009P
TIMER
7X D/A
9X PORT
CAP
CREV
SOL
RL
RH
400kHz
ON
ASDO
MSP
NTSC
LED
MRF
MTA
PiPO
REV
RAF
MEHO
RAL
MASM-HSMS
HSMS
HP2
OFP
LP
PAL
CLCK
PAV
STA1
STR
DATA
FFP
HP1
7360 HEF4071
7307
7308
3DE12
4DE12
7351-C SAA1310
FGD
LIM
7358 BA6432
MOTOR DRIVE
POSITION SIGNAL PROC.
SUPP
7302,73
BRAKE M. DRIVER
7359 TDA5140
PG/FG
7356 TDA8136
+12V
+12V ON
+14VA
ON
FILL
FILH
+14M1
+14M2
+5.1V
-28V
-5
+14VA
+5VA
+33V
-MAIN CONTROL µP-
CONTROL
JCO . . .
8032 7450 7750*
1402 1752* 12MHz
DAT
STROBE
CLOCK
BUSY
TPC
P3.4
P3.5
P3.6
P3.7
P3.2
P3.1
P3.0
UART 2
UART 1
8C02
9C02
ALE
P00 = P07
PSEN
P20 = P26
7452 7752* 75HCT573
LATCH
LE
D0 = D7
Q0 = Q7
EPROM
7451 7751*
A0 = A7
A8 = A13
DE
7753* MK6116-20
RAM
A8 = A10
J/01 = J/08
7453 PCF8583P
POR
1401 32.768kHz
2403
TIMER BACKUP
RAM 256 BYTE
PSS
SBI
AFCD
TSDA
TSCL
P1.5
P1.4
P1.2
P1.3
P1.6
P1.0
P1.1
SHP
7030
POR
ARLI
ALLI
SEE FM AUDIO PANEL
3090
3092
7121
IRRC
7120
3080 SHARPNESS
+5


DECK-ELECTRONICS JFBU/DE
7355
SAD1009P
TIMER
21
13 FOSC
19
18
4
20
9 CAP
6 CREV
7X
D/A
11 SOL
7 RL
8 RH
5 400kHz
23 ON
1 ASDO
2 MSP
3 NTSC
14 LED
15 MRF
16 MTA 7DE20
17 PiPO
22
Q0
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
9X
PORT
7360
HEF4071
7307
REV
REV
RAF
MEHO
RAL
10DE20
MASM-HSMS
HSMS
HP2
OFP
LP
PAL
11DE20
5DE12
8DE19
CLCK
3DE19
7308
PAV
8DE20
STA1
STR
DATA
FFP
HP1
7DE19
5DE19
4DE19
DE12
1
2
3
4
6
7
8
22
11
13
56
5
15
17
81
18
10
14
25
9
12
19
20
23
87
24
39
21
28
26
27
88
7351-C
SAA1310
FGD
14
LIM
6
FG
12DE11
7358
BA6432
16
11
MOTOR
DRIVE
23 CMO1 10DE11
3 CMO2 11DE11
1 CMO3 1DE11
10 H1+ 3DE11
9 H1- 5DE11
8 H2+ 4DE11
7 H2- 6DE11
6 H3+ 7DE11
5 H3- 9DE11
14 2DE11
POSITION
SIGNAL
PROC.
SUPPLY
7302,7303
BRAKE MAGNET
DRIVER
2DE14
BRAKE MAGNET
CAPSTAN MOTOR
N.C.
3L2
4L2
6L2
5L2
15L2
13L2
11L2
12L2
10L2
9L2
7L2
14L2
HALL
IC
HEAD-DISC MOTOR
7359
TDA5140
17 4DE10
1DE10
1 HMO1
16 HMO2 7DE10
3 HMO3 10DE10
8DE10
5 HES 2DE10
13
6
7L1
10L1
1L1
4L1
3L1
9L1
PG/FG
75
7356
TDA8136
+14VA
+12V
+12V ON
37 2DE20
38 3DE20
7
6
1
2
4 ON
SUPPLY JSM-40
HOT CIRCUIT
1216 T315mA
5114
SWITCH
MODE
POWER
SUPPLY
6111 6113
RECTIFIER
6112 6114
1101
T2A
MAINS
PLUG
31 6DE12 FILL 2DE17 8SM2
32 7DE12 FILH 1DE17 9SM2
33 9DE12 3DE17 7SM2
8DE17 2SM2
+14M1
+14M2 7DE17 3SM2
+5.1V
35 13DE20
11DE12 9DE17 1SM2 -28V
-5
+14VA 6DE18 1SM1 +14VA
+5VA 1DE18 6SM1 +33V
+33V 2DE18 5SM1 +5VA
36 1DE20 3DE18 4SM1
7124
CNX83A
JCO . . .
02
6C02
5C02
1C02
5C01
31
32
34
7753*
MK6116-20
RAM
A0
‖
A7
A8
‖
A10
J/01
‖
J/08
OPERATING JDC
7101
TMP47C670
29 8DC1
7030
POR
POR
RESET
19
20
1002
4.19MHz
3DC1
7DC1
FILL
FILH
ARLi
ALLi
SEE FM
AUDIO
PANEL
3090
3092
14 K08
15 K01
17X
FLUORISENT
DISPLAY
(audio bargraph
included)
7140
3068
2A
3068
2B
FM AUDIO
REC. LEVEL
ALHO 2DC3
ALOH 1DC3
3DC3
ARHO 5DC3
AROH 6DC3
4DC3
4DC2
HEADPHONE
LEVEL
3071
CAHL 5DC2
7DC2
2DC2
SEE
ALSO
FM AUDIO
PANEL JAF
9C01
SHP 8C03
51
7121
IRRC
7120
41 INT2
ROM
6144 BYTES
RAM
384X4BIT
+5
2DC1 SHP
3080
SHARPNESS
+5VA +5VA
4C03
52
5C03
53
1C03
6DC1
34
54
-28V
11X
27 KEY's
KEY BOARD
MATRIX
HEADPHONE
JACK
1DC2
3DC2
2C01
1C01
9DC1
10DC1
45 46
47
SI
SO
SCK

A:DC, 0.5 V/Div,10us/Div
B:GND Reference

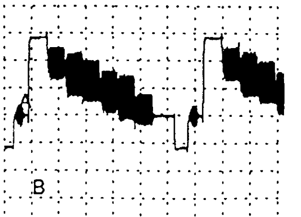


Fig. 1

A: AC, 0.2 V/Div,10us/Div

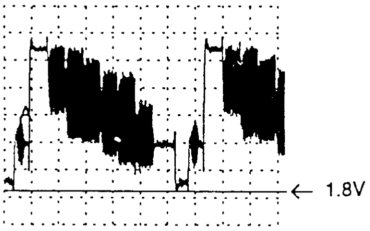


Fig. 2

A:DC, 0.5 V/Div,10us/Div
B:GND Reference

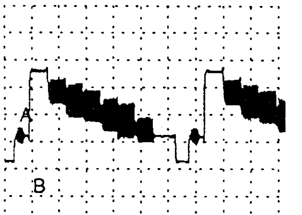


Fig. 3

A: AC, 0.5 V/Div,10us/Div

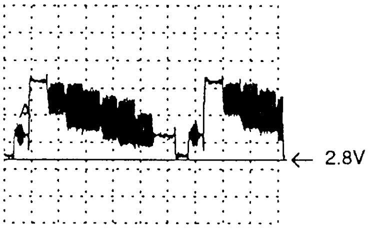


Fig. 4

A: AC, 0.2 V/Div,10us/Div

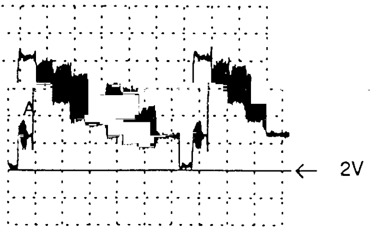


Fig. 5

A:DC, 0.1 V/Div,5ms/Div

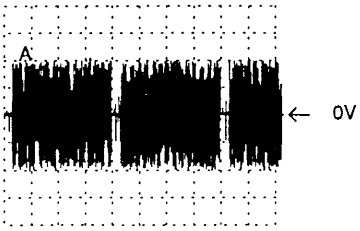


Fig. 6

A:DC, 0.1 V/Div,20us/Div

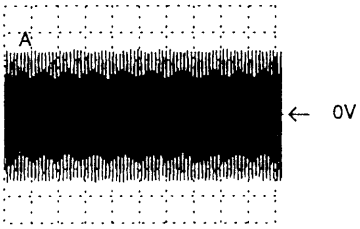


Fig. 7

A:DC, 0.5 V/Div,0.5ms/Div
B:GND Reference

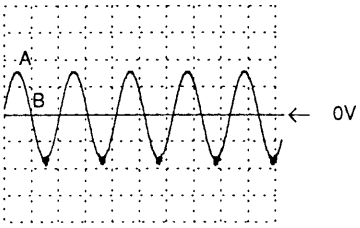


Fig. 8

A:DC, 0.2 V/Div,0.5ms/Div
B:GND Reference

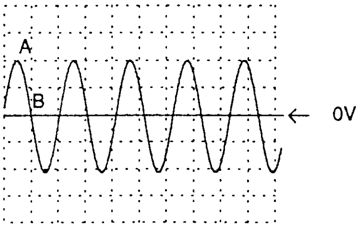


Fig. 9

A: DC, 0.2 V/Div,0.2ms/Div

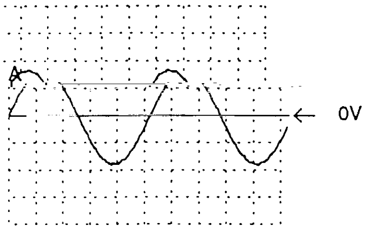


Fig. 10

A: AC, 0.5 V/Div,0.2ms/Div

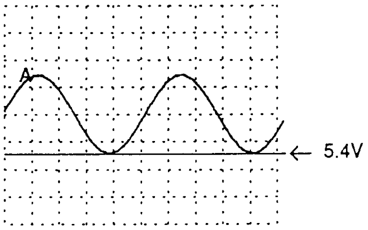


Fig. 11

A:DC, 0.5 V/Div,0.5ms/Div
B:GND Reference

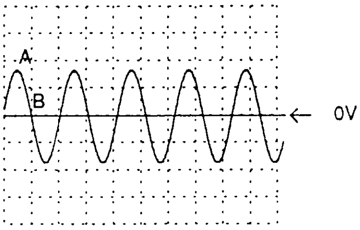


Fig. 12

A:DC, 0.5 V/Div,0.5ms/Div
B:GND Reference

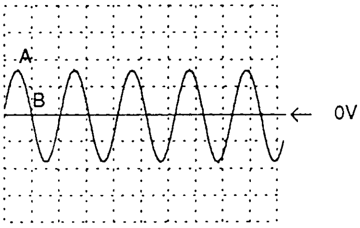
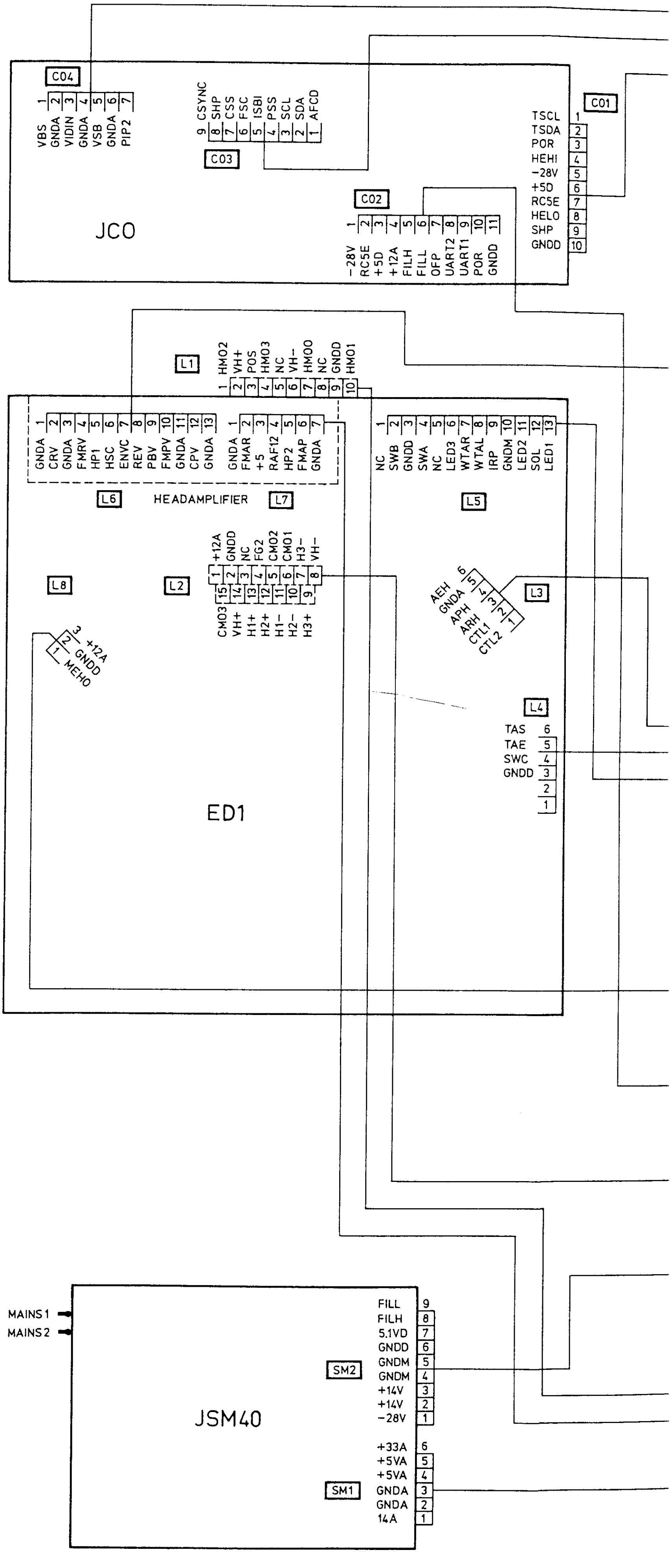
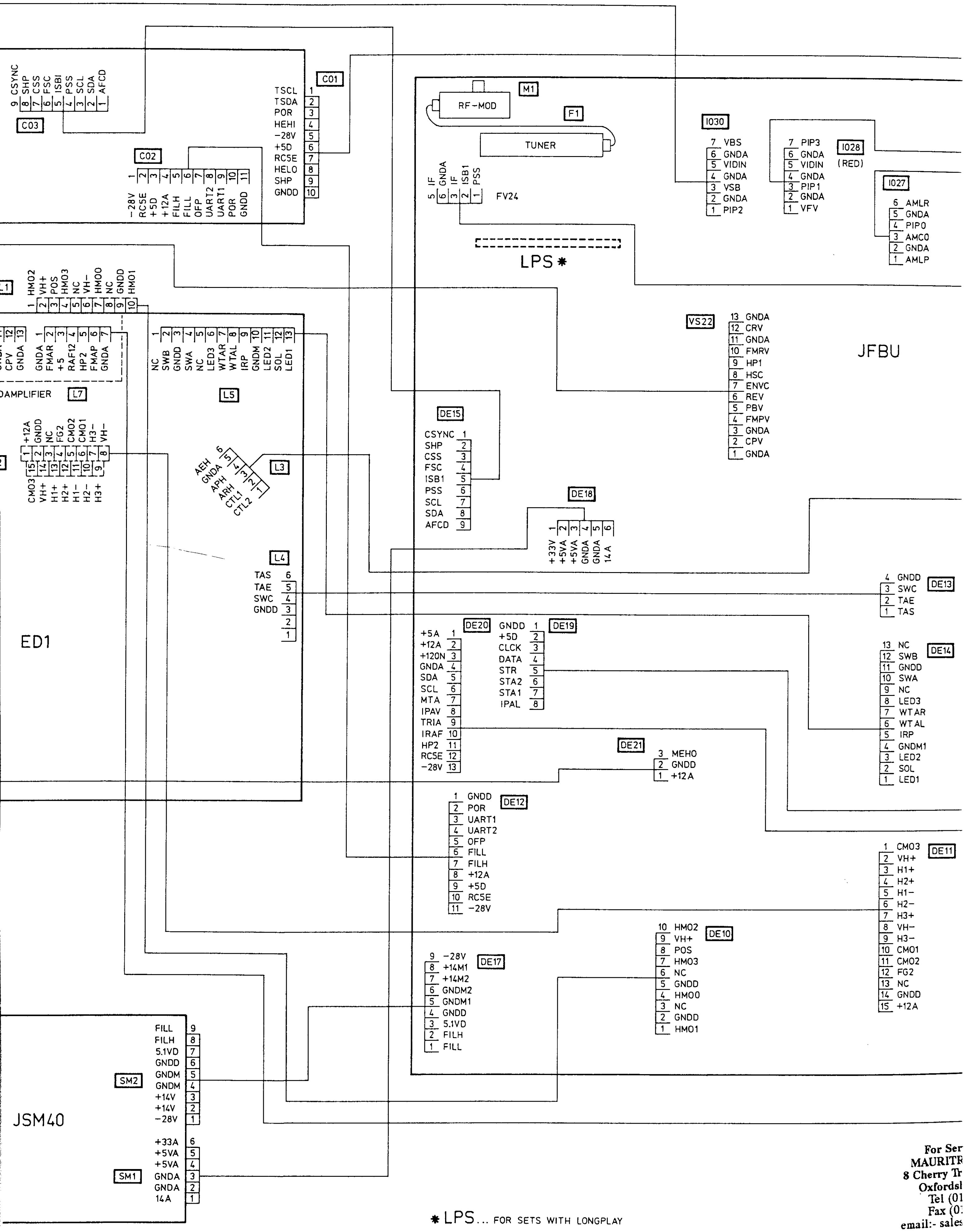


Fig. 13

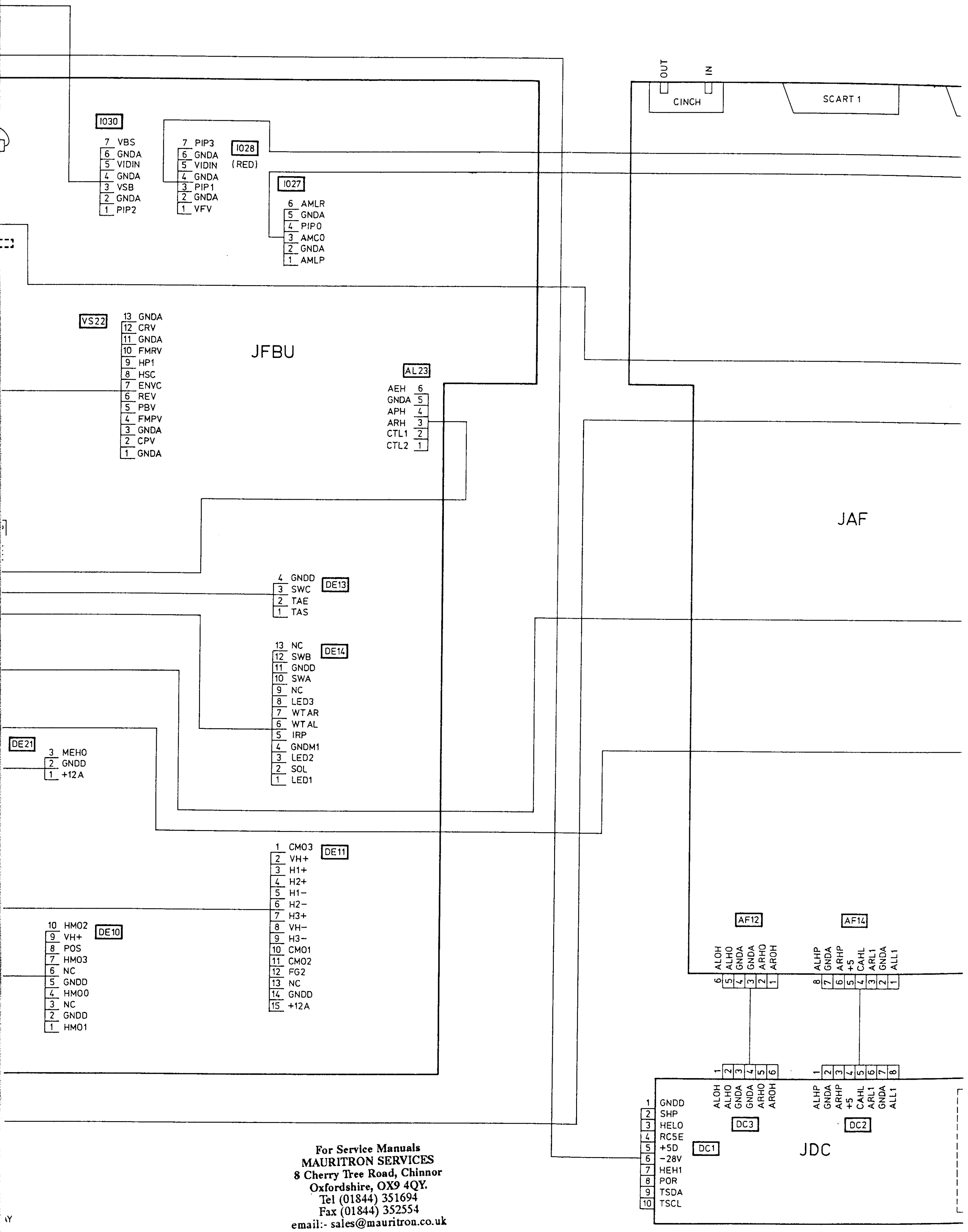
Wiring diagram


JCO
C04
VBS 1
GNDA 2
VIDIN 3
GNDA 4
VSB 5
GNDA 6
PIP2 7
C03
9 CSYNC
8 SHP
7 CSS
6 FSC
5 ISBI
4 PSS
3 SCL
2 SDA
1 AFCD
C02
-28V 1
RC5E 2
+5D 3
+12A 4
FILH 5
FILL 6
OFP 7
UART2 8
UART1 9
POR 10
GNDD 11
C01
TSCL 1
TSDA 2
POR 3
HEHI 4
-28V 5
+5D 6
RC5E 7
HELO 8
SHP 9
GNDD 10
ED1
L1
1 HMO2
2 VH+
3 POS
4 HMO3
5 NC
6 VH-
7 HMOO
8 NC
9 GNDD
10 HMO1
L6
GNDA 1
CRV 2
GNDA 3
FMRV 4
HP1 5
HSC 6
ENVC 7
REV 8
PBV 9
FMPV 10
GNDA 11
CPV 12
GNDA 13
HEADAMPLIFIER
L7
GNDA 1
FMAR 2
+5 3
RAF12 4
HP2 5
FMAP 6
GNDA 7
L5
NC 1
SWB 2
GNDD 3
SWA 4
NC 5
LED3 6
WTAR 7
WTAL 8
IRP 9
GNDM 10
LED2 11
SOL 12
LED1 13
L2
+12A 1
GNDD 2
NC 3
FG2 4
CMO2 5
CMO1 6
H3- 7
VH- 8
CMO3 15
VH+ 14
H1+ 13
H2+ 12
H1- 11
H2- 10
H3+ 9
L3
AEH 6
GNDA 5
APH 4
ARH 3
CTL1 2
CTL2 1
L8
3 +12A
2 GNDD
1 MEHO
L4
TAS 6
TAE 5
SWC 4
GNDD 3
2
1
JSM40
MAINS 1
MAINS 2
SM2
FILL 9
FILH 8
5,1VD 7
GNDD 6
GNDM 5
GNDM 4
+14V 3
+14V 2
-28V 1
SM1
+33A 6
+5VA 5
+5VA 4
GNDA 3
GNDA 2
14A 1

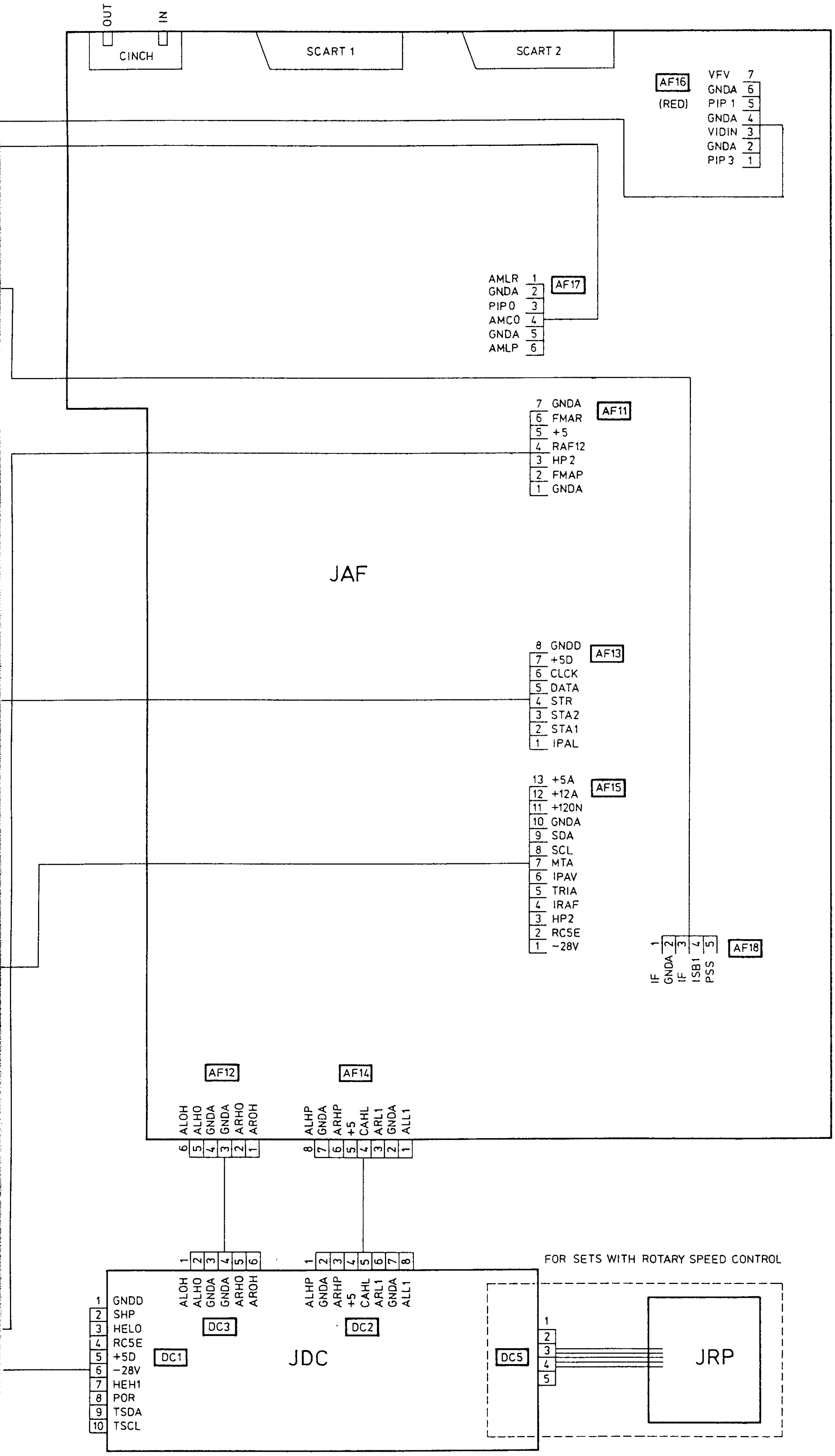

C03
9 CSYNC
8 SHP
7 CSS
6 FSC
5 ISBI
4 PSS
3 SCL
2 SDA
1 AFCD
C01
TSCL 1
TSDA 2
POR 3
HEHI 4
-28V 5
+5D 6
RC5E 7
HELO 8
SHP 9
GNDD 10
C02
1 -28V
2 RC5E
3 +5D
4 +12A
5 FILH
6 FILL
7 OFP
8 UART2
9 UART1
10 POR
11 GNDD
M1
RF-MOD
F1
TUNER
5 IF
6 GNDA
3 IF
2 ISB1
1 PSS
FV24
I030
7 VBS
6 GNDA
5 VIDIN
4 GNDA
3 VSB
2 GNDA
1 PIP2
I028
(RED)
7 PIP3
6 GNDA
5 VIDIN
4 GNDA
3 PIP1
2 GNDA
1 VFV
I027
6 AMLR
5 GNDA
4 PIPO
3 AMCO
2 GNDA
1 AMLP
LPS ✱
L1
1 HMO2
2 VH+
3 POS
4 HMO3
5 NC
6 VH-
7 HMO0
8 NC
9 GNDD
10 HMO1
12 CPV
13 GNDA
1 GNDA
2 FMAR
3 +5
4 RAF12
5 HP2
6 FMAP
7 GNDA
DAMPLIFIER
L7
1 NC
2 SWB
3 GNDD
4 SWA
5 NC
6 LED3
7 WTAR
8 WTAL
9 IRP
10 GNDM
11 LED2
12 SOL
13 LED1
L5
1 +12A
2 GNDD
3 NC
4 FG2
5 CMO2
6 CMO1
7 H3-
8 VH-
15 CMO3
14 VH+
13 H1+
12 H2+
11 H1-
10 H2-
9 H3+
6 AEH
5 GNDA
4 APH
3 ARH
2 CTL1
1 CTL2
L3
L4
TAS 6
TAE 5
SWC 4
GNDD 3
2
1
ED1
VS22
13 GNDA
12 CRV
11 GNDA
10 FMRV
9 HP1
8 HSC
7 ENVC
6 REV
5 PBV
4 FMPV
3 GNDA
2 CPV
1 GNDA
JFBU
DE15
CSYNC 1
SHP 2
CSS 3
FSC 4
ISB1 5
PSS 6
SCL 7
SDA 8
AFCD 9
DE18
1 +33V
2 +5VA
3 +5VA
4 GNDA
5 GNDA
6 14A
4 GNDD
3 SWC
2 TAE
1 TAS
DE13
DE20
+5A 1
+12A 2
+120N 3
GNDA 4
SDA 5
SCL 6
MTA 7
IPAV 8
TRIA 9
IRAF 10
HP2 11
RC5E 12
-28V 13
DE19
GNDD 1
+5D 2
CLCK 3
DATA 4
STR 5
STA2 6
STA1 7
IPAL 8
DE14
13 NC
12 SWB
11 GNDD
10 SWA
9 NC
8 LED3
7 WTAR
6 WTAL
5 IRP
4 GNDM1
3 LED2
2 SOL
1 LED1
DE21
3 MEHO
2 GNDD
1 +12A
DE12
1 GNDD
2 POR
3 UART1
4 UART2
5 OFP
6 FILL
7 FILH
8 +12A
9 +5D
10 RC5E
11 -28V
DE11
1 CMO3
2 VH+
3 H1+
4 H2+
5 H1-
6 H2-
7 H3+
8 VH-
9 H3-
10 CMO1
11 CMO2
12 FG2
13 NC
14 GNDD
15 +12A
DE10
10 HMO2
9 VH+
8 POS
7 HMO3
6 NC
5 GNDD
4 HMO0
3 NC
2 GNDD
1 HMO1
DE17
9 -28V
8 +14M1
7 +14M2
6 GNDM2
5 GNDM1
4 GNDD
3 5.1VD
2 FILH
1 FILL
JSM40
SM2
FILL 9
FILH 8
5.1VD 7
GNDD 6
GNDM 5
GNDM 4
+14V 3
+14V 2
-28V 1
SM1
+33A 6
+5VA 5
+5VA 4
GNDA 3
GNDA 2
14A 1

✱ LPS... FOR SETS WITH LONGPLAY

For Ser
MAURITR
8 Cherry Tr
Oxfordsl
Tel (01
Fax (0
email:- sales


1030
7 VBS
6 GNDA
5 VIDIN
4 GNDA
3 VSB
2 GNDA
1 PIP2
7 PIP3
6 GNDA
5 VIDIN
4 GNDA
3 PIP1
2 GNDA
1 VFV
1028
(RED)
1027
6 AMLR
5 GNDA
4 PIPO
3 AMCO
2 GNDA
1 AMLP
OUT
IN
CINCH
SCART 1
VS22
13 GNDA
12 CRV
11 GNDA
10 FMRV
9 HP1
8 HSC
7 ENVC
6 REV
5 PBV
4 FMPV
3 GNDA
2 CPV
1 GNDA
JFBU
AL23
AEH 6
GNDA 5
APH 4
ARH 3
CTL1 2
CTL2 1
JAF
4 GNDD
3 SWC
2 TAE
1 TAS
DE13
13 NC
12 SWB
11 GNDD
10 SWA
9 NC
8 LED3
7 WTAR
6 WTAL
5 IRP
4 GNDM1
3 LED2
2 SOL
1 LED1
DE14
DE21
3 MEHO
2 GNDD
1 +12A
1 CMO3
2 VH+
3 H1+
4 H2+
5 H1-
6 H2-
7 H3+
8 VH-
9 H3-
10 CMO1
11 CMO2
12 FG2
13 NC
14 GNDD
15 +12A
DE11
10 HMO2
9 VH+
8 POS
7 HMO3
6 NC
5 GNDD
4 HMOO
3 NC
2 GNDD
1 HMO1
DE10
AF12
ALOH ALHO GNDA GNDA ARHO AROH
6 5 4 3 2 1
AF14
ALHP GNDA ARHP +5 CAHL ARL1 GNDA ALL1
8 7 6 5 4 3 2 1
1 2 3 4 5 6
ALOH ALHO GNDA GNDA ARHO AROH
DC3
1 2 3 4 5 6 7 8
ALHP GNDA ARHP +5 CAHL ARL1 GNDA ALL1
DC2
1 GNDD
2 SHP
3 HELO
4 RC5E
5 +5D
6 -28V
7 HEH1
8 POR
9 TSDA
10 TSCL
DC1
JDC

For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk


OUT
IN
CINCH
SCART 1
SCART 2
AF16
(RED)
VFV 7
GNDA 6
PIP 1 5
GNDA 4
VIDIN 3
GNDA 2
PIP 3 1
AMLR 1
GNDA 2
PIP0 3
AMC0 4
GNDA 5
AMLP 6
AF17
AF11
7 GNDA
6 FMAR
5 +5
4 RAF12
3 HP2
2 FMAP
1 GNDA
JAF
AF13
8 GNDD
7 +5D
6 CLCK
5 DATA
4 STR
3 STA2
2 STA1
1 IPAL
AF15
13 +5A
12 +12A
11 +120N
10 GNDA
9 SDA
8 SCL
7 MTA
6 IPAV
5 TRIA
4 IRAF
3 HP2
2 RC5E
1 -28V
AF18
1 IF
2 GNDA
3 IF
4 ISB1
5 PSS
AF12
ALOH 6
ALHO 5
GNDA 4
GNDA 3
ARHO 2
AROH 1
AF14
ALHP 8
GNDA 7
ARHP 6
+5 5
CAHL 4
ARL1 3
GNDA 2
ALL1 1
FOR SETS WITH ROTARY SPEED CONTROL
1 ALOH
2 ALHO
3 GNDA
4 GNDA
5 ARHO
6 AROH
DC3
1 ALHP
2 GNDA
3 ARHP
4 +5
5 CAHL
6 ARL1
7 GNDA
8 ALL1
DC2
1 GNDD
2 SHP
3 HELO
4 RC5E
5 +5D
6 -28V
7 HEH1
8 POR
9 TSDA
10 TSCL
DC1
JDC
DC5
1
2
3
4
5
JRP

45 480 E11

	List of abbreviations	**Liste der Abkürzungen**	**Abrèvations**
AFCD	Autom. frequency control digital	Autom. Frequenzkontrolle digital	Contrôle de frequence digital auto
AFV1	Audio left from FV	Audio links von Frontend	Audio gauche de FV
AFV2	Audio right from FV	Audio rechts von Frontend	Audio droite de FV
AFV3	Audio mono from FV	Audio mono von Frontend	Audio mono de FV
ALHO, ALOH	Audio left level control	Audio-Pegel links	Contrôle du niveau du son de gauche
ALHP	Audio left headphone output	Kopfhörerausgang links	Écouteurs son gauche
ALLI	Audio left level indication	Aussteuerungsanzeige links	Indication du niveu son de gauche
ALFP	Audio left FM-playback	FM-Audio Wiedergabe links	Audio gauche (FM) lecture
ALFR	Audio left FM-record	FM-Audio Aufnahme links	Audio droite (FM) lecture
ARFP	Audio right FM-playback	FM-Audio Wiedergabe rechts	Lecture (FM) son de droite
ARFR	Audio right FM-record	FM-Audio Aufnahme rechts	Enregistrement son de droite (FM)
AMCO	Audio to the modulator	Audio zum Modulator	Unité combi son mono vers le modulateur
AMLP	Audio mono linear P.B	Mono Audio Wiedergabe	Lecture mono du son linéaire
AMLR	Audio mono linear record	Mono Audio Aufnahme	Enregistrement linéaire son mono
ARHO, AROH	Audio right level control	Audio-Pegel rechts	Contrôle du niveau du son de droite
ARHP	Audio right headphone output	Kopfhörerausgang rechts	Écouteurs son gauche
ARLI	Audio right level indication	Aussteuerungsanzeige rechts	Indication du niveau du son de droite
BUSY	OSD busy	OSD aktiv	OSD actif
CAP	Capstan on	Capstan ein	Cabestan actif
CLOCK	OSD clock	OSD Serieller Bus Clock	Horlage de OSD de bus
CREV	Capstan reverse	Capstan reverse	Inversion du cabestan
CPV	Chroma playback video	Chroma Wiedergabe Video	Lecture chrominance image
CRV	Chroma record video	Chroma Aufnahme Video	Enregistrement chrominance image
CSS	Colour system standard	Farbstandard	Système coleur standard
CSYNC	Sync impulse	Syncimpuls	Régulation signal de piste
DAT	OSD data	OSD Serieller Bus Daten	Données sérielles de bus
DL2	Dual language 2	Zweisprachbetrieb 2. Sprache	Contrôle langue parallèle

pe Vergleicher	Contrôle enveloppante	ENVC	Envelope comparator	Envelo
er Eingang 1 (2)	Source externe 1 (2)	ESS1 (2)	External source select 1 (2)	Extern
e frame pulse	Impulsion de montage spécial	FFP	Feature frame pulse	Featur
n Tacho digital	Cabestan tacho digital	FGD	Capstan tacho digital	Capsta
dio-Wiedergabe	Lecture son FM	FMAP	FM audio playback	FM Au
dio-Aufnahme	Enregistrement son FM	FMAR	FM audio record	FM Au
eo-Wiedergabe	Lecture image FM	FMPV	FM playback video signal	FM Vi
eo-Aufnahme	Enregestrement image FM	FMRV	FM record video signal	FM Vi
pulse	Impulsion image	FRP	Frame pulse	Frame
fsträger	Sous-porteuse de coleur	FSC	Colour subcarrier	Farbhi
mmelmotor	Moteur du tambour de tête	HMO	Head drum motor	Kopftro
nschaltimpuls Video (Audio)	Impulsion de tête image (son)	HP1 (2)	Head pulse video, (audio)	Kopfu
opf-Auswahlregelung	Réglage de sélection de la tête vidéo	HSC	Headselectcontrol	Videok
opf-Auswahlsignal	Signal de sélection de la tête vidéo	HSMS	Head selection signal	Videok
andende (-anfang)	LED fin de bande (start)	LED	Led tape end (start)	LED B
ay ein	Longue durée actif	LP	Longplay on	Longpl
ller Audiopegel	Niveau non-automatique du son	MAAL	Manual audio level	Manue
lle Mehrfachgeschwindigkeit	Sélection non-automatique de la tête	MASM	Manual autoselect multispeed	Manue
öschkopf ein	Tête d'effacement principale actif	MEHO	Main erase head on	Hauptl
udio-Modulator	Silence audio	MRF	Mute audio combiunit	Mute A
chgeschwindigkeit	Vitesses variées	MSP	Multispeed	Mehrfa
udio	Silencieux son	MTA	Mute audio	Mute A
Wiedergabe	60 Hz lecture	NTSC	60 Hz playback	60 Hz-
ildimpuls	Impulsion image OSD	OFP	OSD frame pulse	OSD-B
gabe AL	Lecture son linéaire	PAL	Playback AL	Wieder
gabe AF,VS	Lecture AF, VS	PAV	Playback AF, VS	Wieder
gabe Video	Lecture image	PBV	Playback video	Wieder
on reset	Remise à zéro	POR	Power on reset	Power
ECAM L	PAL/SECAM L	PSS	PAL/SECAM L	PAL/SE
me AF	Enregistrement son FM	RAF	Record audio AF	Aufnah
me AL	Enregistrement son linéaire	RAL	Record AL	Aufnah
me VS	Enregistrement image	REV	Record video	Aufnah
me geschützt	Sauvegarde enregistrement	RP	Record protect	Aufnah
ingang Auswahl	Sélection entrée son 1 (2)	SAT1 (2)	Select audio input 1 (2)	Audio E
usgang Auswahl	Sélection sortie son 1 (2)	SAO1 (2)	Select audio output 1, (2)	Audio A
M band 1	SECAM bandes 1	SBI	SECAM band I	SECAM
	Bus IIC	SCL, SDA	IIC bus	IIC-Bus
ärferegler	Contrôle de netteté	SHP	Sharpness control	Bildsch
gnet	Solénoide	SOL	Power solenoid	Hubma
Audio	Statut son 1 (2)	STA1 (2)	Status audio 1 (2)	Status
nde-Erkennung	Repérage fin de bande	TAE	End of tape detection	Bander
nfangs-Erkennung	Repérage début de bande	TAS	Beginning of tape detection	Bandar
ontrolle	Contrôle mire de test	TPC	Testpicture check	Testbill
g-Information Audio	Palpage information son	TRIA	Tracking information audio	Trackin
g-Information Video	Palpage information image	TRIV	Tracking information video	Trackin
a-Bus	Toshiba bus	TSCL, TSDA	Toshiba bus	Toshiba
m deck P	Bus Uart 1 (2)	UART1 (2)	Bus deck	Bus zu
u SE	Vidéo à SE	VBS	Video to SE	Video z
om Frontend	Signal image du frontal	VFV	Video of frontend	Video v
in	Entrée video	VIDIN	Video in	Video e
um Modulator	Image mono de l'unité combi	VMCO	Video modulator combiunit	Video z
on der SE	Vidéo de SE	VSB	Video from SE	Video v
eller links	Bobinage tacho de gauche	WTAL	Wind tacho left	Wickelt
eller rechts	Bobinage tacho de droite	WTAR	Wind tacho right	Wickelt

	Lijst van afkortingen	**Lista de abreviaturas**	**Lista delle abbreviazioni**
AFCD	Auto frekw. regeling-digital	Control de frecuencia automát. digital	Controllo frequenza digitale autom.
AFV1	Audio links van FV	Audio izquierdo front-end	Audio dal front-end sinistro
AFV2	Audio rechts van FV	Audio derecho front-end	Audio dal front-end destro
AFV3	Audio mono van FV	Audio mono front-end	Audio mono dal front-end
ALHO, ALOH	Nivo regular audio links	Nivel-audio izquierdo	Livello audio sinistro
ALHP	Hoofd telefoon uitgang links	Salida auricular izquierda	Uscita cuffia sinistra
ALLI	Nivo indicator audio links	Indicador de modulación izquierdo	Indicazione livello audio canale sinistro
ALFP	Weergave FM audio links	Reproducción FM-audio izquierdo	Riproduzione audio FM sinistro
ALFR	Opname FM audio links	Grabación FM-audio izquierdo	Registrazione audio FM sinistro
ARFP	Weergave FM audio rechts	Reproducción FM-audio derecho	Riproduzione audio FM destro
ARFR	Opname FM audio rechts	Grabación FM-audio derecho	Registrazione audio FM destro
AMCO	Audio naar de modulator	Audio hacia modulador	Audio per il modulatore
AMLP	Weergave audio mono lineair	Reproducción audio mono	Riproduzione audio mono
AMLR	Opname audio mono lineair	Grabación audio mono	Registrazione audio mono
ARHO, AROH	Nivo regelaar audio rechts	Nivel audio derecho	Livello audio destro

Power supply JSM-40

1101	A7
1216	A2
1228	B1
2101	B7
2103	A5
2107	C6
2108	C7
2112	A5
2113	C4
2115	C7
2121	C5
2124	C5
2127	C6
2135	B4
2136	B5
2207	C1
2208	B2
2210	B2
2211	A1
2212	A2
2217	B1
2221	A1
2222	A1
2230	B1
2236	C3
2238	C3
2244	C1
2254	C1
2260	A2
2261	A1
3102	A7
3103	A6
3104	A6
3106	C7
3109	C6
3112	B6
3120	C5
3121	C6
3123	B4
3124	C6
3125	C5
3126	C5
3131	B5
3134	B5
3140	C6
3141	B6
3207	C1
3217	B1
3230	B2
3236	C3
3238	C2
3240	C3
3242	C2
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3247	C4
3248	C4
3250	C2
3251	C2
3254	C1
3255	C1
3257	C1
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6137	
6138	
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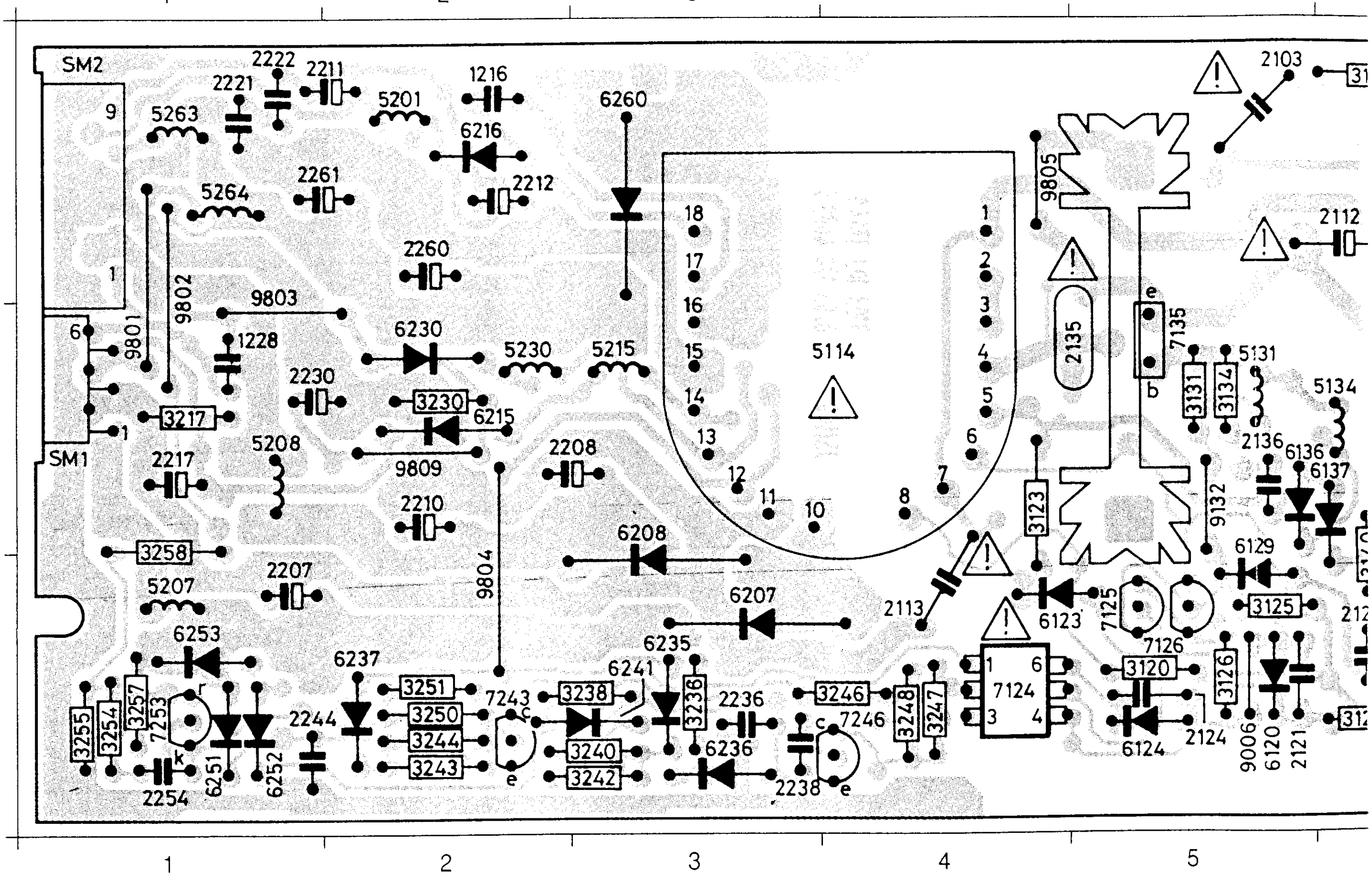
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2
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5114
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9805
2135
7135
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6123
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7124
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3126
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2103
2112
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3134
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2136
6136
6137
9132

2136	B5	2260	A2	3131	B5	3247	C4	5215	B3	6137	B5	6260	A3	9132
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2212	A2	3106	C7	3217	B1	3255	C1	6111	B6	6216	A2	7135	B5	9805
2217	B1	3109	C6	3230	B2	3257	C1	6112	B6	6230	B2	7243	C2	9809
2221	A1	3112	B6	3236	C3	3258	C1	6113	B6	6235	C3	7246	C4	
2222	A1	3120	C5	3238	C2	5103	B7	6120	C5	6236	C3	7253	C1	
2230	B1	3121	C6	3240	C3	5114	B3	6123	C4	6237	C1	9006	C5	
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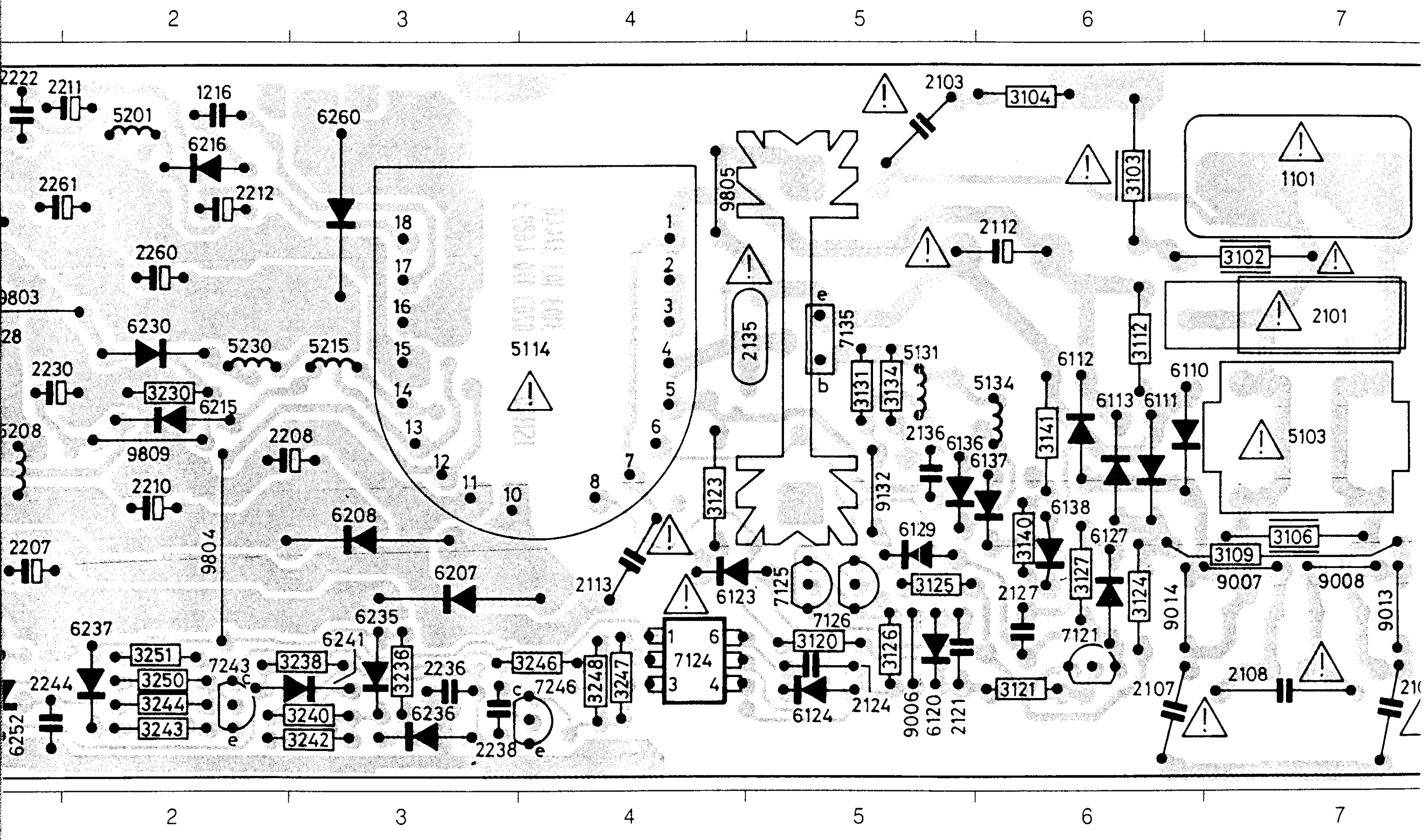
2238	C3	3124	C6	3243	C2	5134	B5	6127	C6	6251	C1	9008	C7	
2244	C1	3125	C5	3244	C2	5201	A2	6129	C5	6252	C1	9013	C7	
2254	C1	3126	C5	3246	C3	5208	B1	6136	B5	6253	C1	9014	C6	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7246
c
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3246
3248
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18
17
16
15
14
13
12
11
10
1
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3
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6
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6111
6110
9014
1101
3102
2101
5103
3106
3109
9007
9008
9013
2107
2108

45 50

6137	B5	6260	A3	9132	B5
6138	B6	7121	C6	9801	B1
6207	C3	7124	C4	9802	A1
6208	B3	7125	C5	9803	B1
6215	B2	7126	C5	9804	C2
6216	A2	7135	B5	9805	A4
6230	B2	7243	C2	9809	B2
6235	C3	7246	C4		
6236	C3	7253	C1		
6237	C1	9006	C5		
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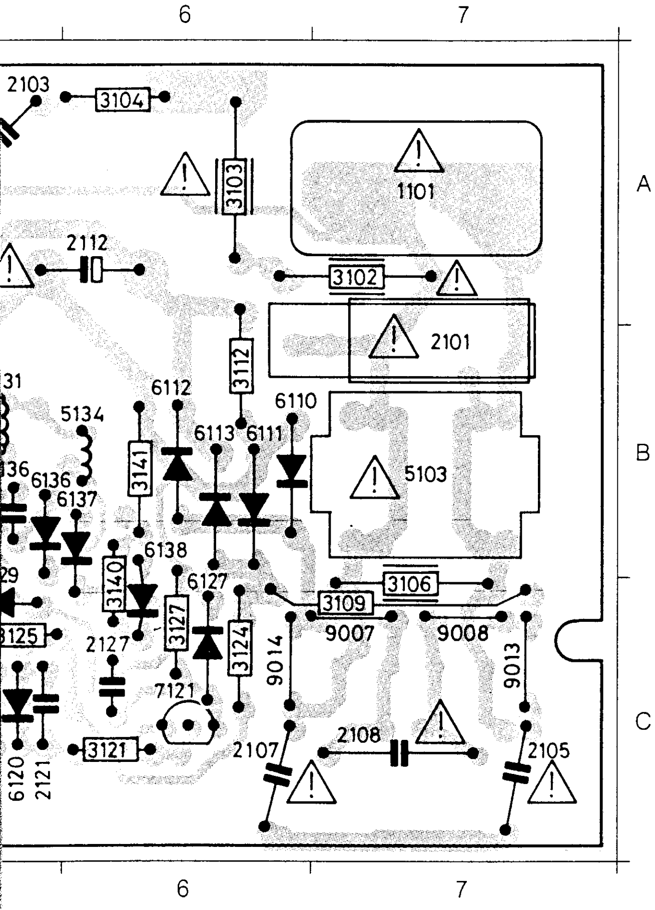
6251	C1	9008	C7		
6252	C1	9013	C7		
6253	C1	9014	C6		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6111
3141
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6137
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6138
3140
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3106
29
3127
3124
3109
125
9014
9007
9008
9013
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7121
3121
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2108
2105
6120
2121

45 506 C14

A:AC, 100V/Div, 5us/Div

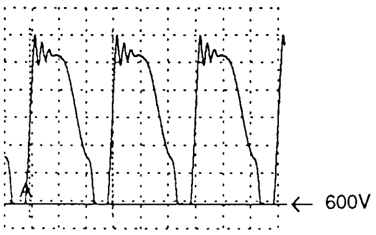


Fig. 1

A:DC, 2 V/Div, 5us/Div
B:GND Reference

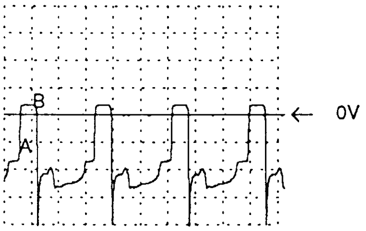


Fig. 2

A:DC, 2 V/Div, 5us/Div
B:GND Reference

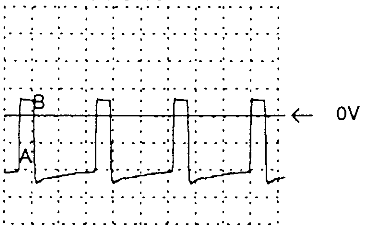


Fig. 3

A:DC, 2 V/Div, 5us/Div
B:GND Reference

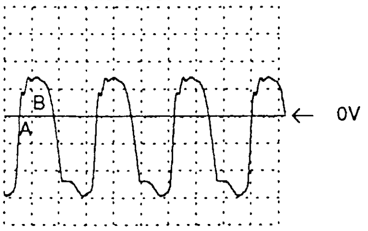


Fig. 4

A:DC, 5 V/Div, 5us/Div
B:GND Reference

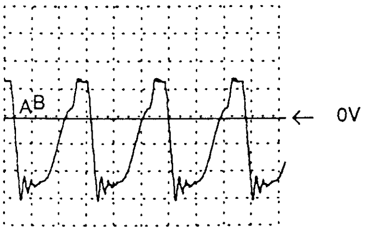
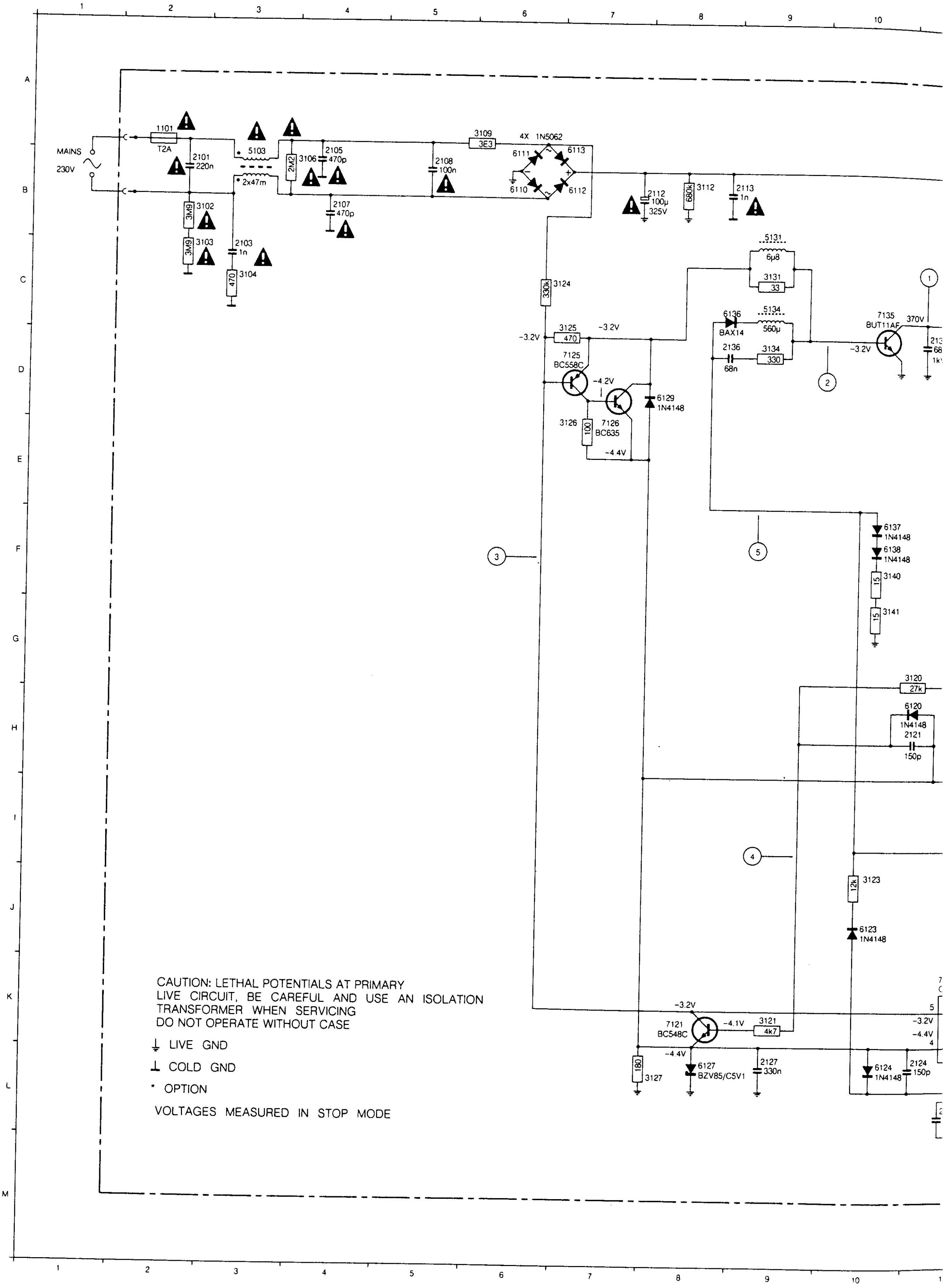


Fig. 5

Power-supply JSM-40


MAINS
230V
1101
T2A
2101
220n
5103
2x47m
3102
3M9
3103
3M9
2103
1n
3104
470
2M2
3106
2105
470p
2107
470p
2108
100n
3109
3E3
4X 1N5062
6111
6113
6110
6112
2112
100µ
325V
3112
680k
2113
1n
5131
6µ8
3131
33
3124
330k
6136
BAX14
5134
560µ
2136
68n
3134
330
7135
BUT11AF
370V
-3.2V
3125
470
7125
BC558C
-4.2V
6129
1N4148
3126
100
7126
BC635
-4.4V
6137
1N4148
6138
1N4148
3140
15
3141
15
3120
27k
6120
1N4148
2121
150p
3123
12k
6123
1N4148
7121
BC548C
-4.1V
3121
4k7
-4.4V
3127
180
6127
BZV85/C5V1
2127
330n
6124
1N4148
2124
150p
①
②
③
④
⑤
A
B
C
D
E
F
G
H
I
J
K
L
M
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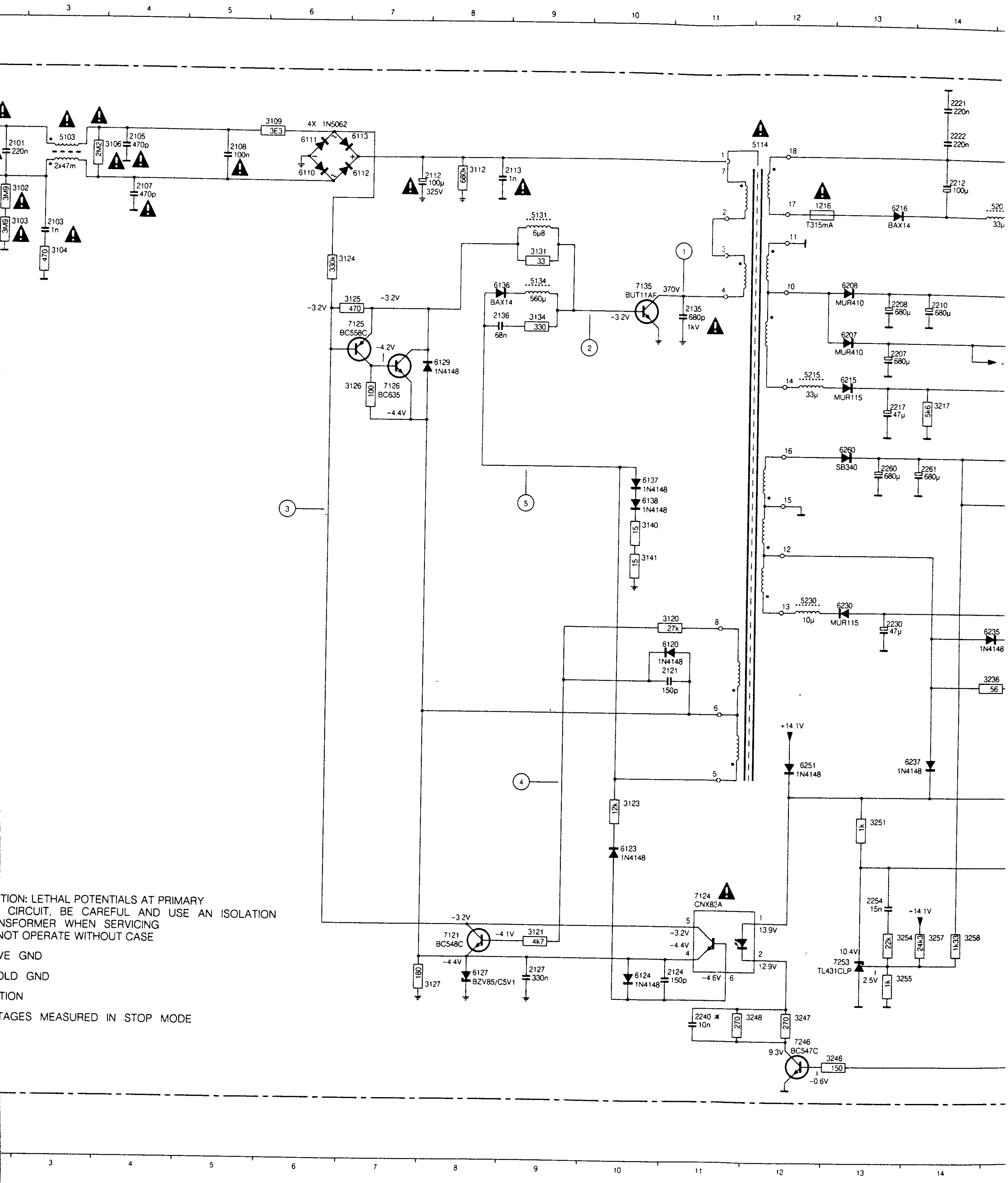
CAUTION: LETHAL POTENTIALS AT PRIMARY
LIVE CIRCUIT, BE CAREFUL AND USE AN ISOLATION
TRANSFORMER WHEN SERVICING
DO NOT OPERATE WITHOUT CASE

⏚ LIVE GND

⊥ COLD GND

* OPTION

VOLTAGES MEASURED IN STOP MODE


3
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6
7
8
9
10
11
12
13
14
2101
220n
5103
2x47m
3102
3M9
3103
3M9
2103
1n
470
3104
2M2
3106
2105
470p
2107
470p
2108
100n
3109
3E3
4X 1N5062
6111
6113
6110
6112
2112
100µ
325V
680k
3112
2113
1n
330k
3124
5131
6µ8
3131
33
6136
BAX14
5134
560µ
2136
68n
3134
330
3125
470
-3.2V
7125
BC558C
-4.2V
7126
BC635
3126
100
-4.4V
6129
1N4148
7135
BUT11AF
370V
2135
680p
1kV
5114
1216
T315mA
6216
BAX14
2221
220n
2222
220n
2212
100µ
520
33µ
6208
MUR410
2208
680µ
2210
680µ
6207
MUR410
2207
680µ
5215
33µ
6215
MUR115
2217
47µ
5k6
3217
6260
SB340
2260
680µ
2261
680µ
5230
10µ
6230
MUR115
2230
47µ
6235
1N4148
3236
56
6137
1N4148
6138
1N4148
3140
15
3141
15
3120
27k
6120
1N4148
2121
150p
+14.1V
6251
1N4148
6237
1N4148
3123
12k
6123
1N4148
3251
1k
7124
CNX83A
13.9V
12.9V
-4.6V
2254
15n
+14.1V
10.4V
7253
TL431CLP
2.5V
22k
3254
24k3
3257
1K33
3258
1k
3255
7121
BC548C
-4.1V
3121
4k7
6127
BZV85/C5V1
2127
330n
180
3127
6124
1N4148
2124
150p
2240
10n
270
3248
270
3247
7246
BC547C
9.3V
3246
150
-0.6V
①
②
③
④
⑤

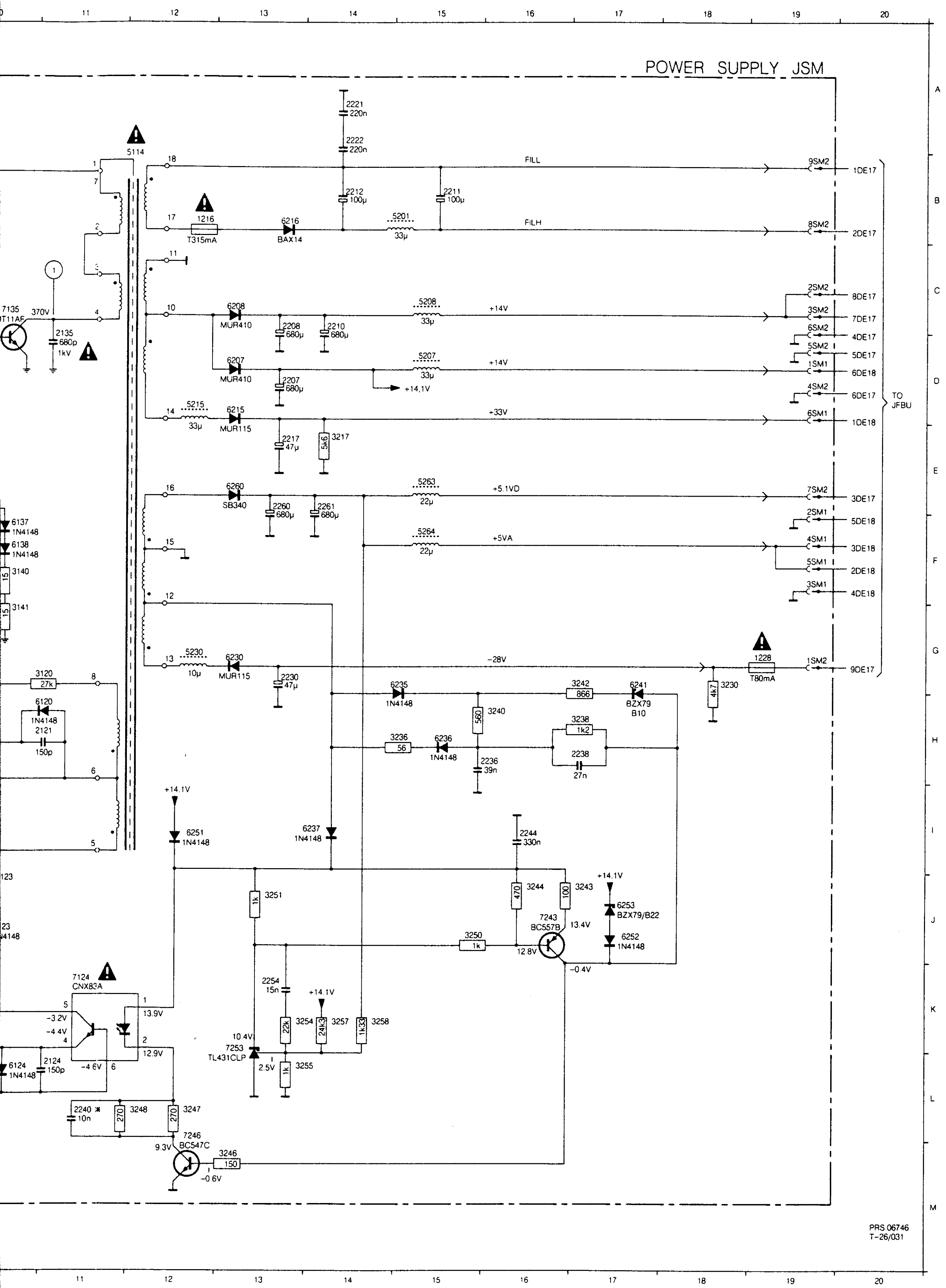
TION: LETHAL POTENTIALS AT PRIMARY
CIRCUIT, BE CAREFUL AND USE AN ISOLATION
NSFORMER WHEN SERVICING
NOT OPERATE WITHOUT CASE

VE GND

OLD GND

TION

TAGES MEASURED IN STOP MODE


POWER SUPPLY JSM
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T315mA
6216
BAX14
5201
33µ
2221
220n
2222
220n
2212
100µ
2211
100µ
FILL
FILH
9SM2
8SM2
1DE17
2DE17
7135
370V
2135
680p
1kV
6208
MUR410
2208
680µ
2210
680µ
5208
33µ
+14V
6207
MUR410
2207
680µ
5207
33µ
+14V
+14,1V
5215
33µ
6215
MUR115
2217
47µ
3217
5k6
+33V
2SM2
3SM2
6SM2
5SM2
1SM1
4SM2
6SM1
8DE17
7DE17
4DE17
5DE17
6DE18
6DE17
1DE18
TO JFBU
6260
SB340
2260
680µ
2261
680µ
5263
22µ
+5.1VD
5264
22µ
+5VA
7SM2
2SM1
4SM1
5SM1
3SM1
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5DE18
3DE18
2DE18
4DE18
6137
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3140
3141
5230
10µ
6230
MUR115
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-28V
1228
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9DE17
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B10
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2236
39n
3238
1k2
2238
27n
+14.1V
6251
1N4148
6237
1N4148
2244
330n
3251
1k
3244
470
3243
100
+14.1V
6253
BZX79/B22
6252
1N4148
7243
BC557B
13.4V
12.8V
-0.4V
3250
1k
2254
15n
+14.1V
3254
22k
3257
24k3
3258
1k33
10.4V
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TL431CLP
2.5V
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1k
7124
CNX83A
-3.2V
-4.4V
-4.6V
13.9V
12.9V
6124
1N4148
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150p
2240
10n
3248
270
3247
270
7246
BC547C
9.3V
3246
150
-0.6V
PRS.06746
T-26/031

1101	A2
1216	B12
1228	G19
2101	B2
2103	C3
2105	B4
2107	B4
2108	B5
2112	B7
2113	B8
2121	H11
2124	L11
2127	L9
2135	D11
2136	D8
2207	D13
2208	C13
2210	C14
2211	B15
2212	B14
2217	E13
2221	A14
2222	A14
2230	G13
2236	H15
2238	H17
2240	L11
2244	I 16
2254	K13
2260	E13
2261	E14
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3103	C2
3104	C3
3106	B3
3109	A6
3112	B8
3120	G11
3121	K9
3123	J10
3124	C6
3125	C7
3126	E6
3127	L8
3131	C9
3134	D9
3140	F10
3141	G10
3217	E14
3230	G18
3236	H15
3238	H17
3240	H16
3242	G17
3243	J17
3244	J16
3246	M13
3247	L12
3248	L12
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3254	K13
3255	L13
3257	K14
3258	K14
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5114	B11
5131	B9
5134	C9
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5207	D15
5208	C15
5215	D12
5230	G12
5263	E15
5264	F15
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6112	B7
6113	A7
6120	H11
6123	J10
6124	L10
6127	L8
6129	D8
6136	C8
6137	F10
6138	F10
6207	D13
6208	C13
6215	D13
6216	B13
6230	G13
6235	G15
6236	H15
6237	I 13
6241	G17
6251	I 12
6252	J17
6253	J17
6260	E13
7121	K8
7124	K11
7125	D7
7126	E7
7135	C10
7243	J16
7246	L12
7253	K13

Head amplifier HV4/2

Einstellungen am Kopfverstärker

1. Luminanz-Schreibstromeinstellung (3022)
- kein Signal einspeisen (Programm E1)
- Gerät in Stellung "AUFNAHME" bringen
- an den Schreibstrom-Meßpin ein Oszilloskop schalten
- die Masse des Oszilloskops mit dem Massepin und der Abschirmung des Kopfverstärkers verbinden.
- Widerstand 3022 so einstellen, daß die Amplitude des Signals 105mVss (für Geräte ohne Video-Longplay) oder 95mVss (für Geräte mit Video-Longplay) beträgt.

2. Chrominance-Schreibstromeinstellung (3023)
- mit einem Testbildgenerator über den Eurokonnektor (Programm E1) ein Rotbild-Videosignal einspeisen
- Gerät in Stellung "AUFNAHME" bringen
- an den Schreibstrom-Meßpin ein Oszilloskop schalten
- die Masse des Oszilloskops mit dem Massepin und der Abschirmung des Kopfverstärkers verbinden
- Pin 4L6 mit Masse verbinden
- Widerstand 3023 so einstellen, daß die Amplitude des Signals -12 dB (auf das Luminanzsignal bezogen) beträgt (25mV)

Settings of the head amplifier

1. Luminance record current setting (3022)
- Feed no signal (program E1)
- Bring unit in mode "RECORD"
- Connect an oscilloscope to the record current measuring pin
- Connect the chassis of the oscilloscope to the chassis pin and the screening of the head amplifier
- Set resistor 3022 so that the amplitude of the signal is 105 mVss (for units without video longplay) or 95 mVss (for units with video longplay)

2. Chrominance record current setting (3023)
- Feed a red clip video signal with a test pattern generator via the Euroconnector (program E1)
- Bring unit into mode "RECORD"
- Connect an oscilloscope to the record current measuring pin
- Connect the chassis of the oscilloscope with the chassis pin and the screening of the head amplifier
- Connect pin 4L6 with the chassis
- Set resistor 3023 so that the amplitude of the signal is - 12 dB (with reference to the luminance signal) (25 mV)

Instellingen aan de kopversterker

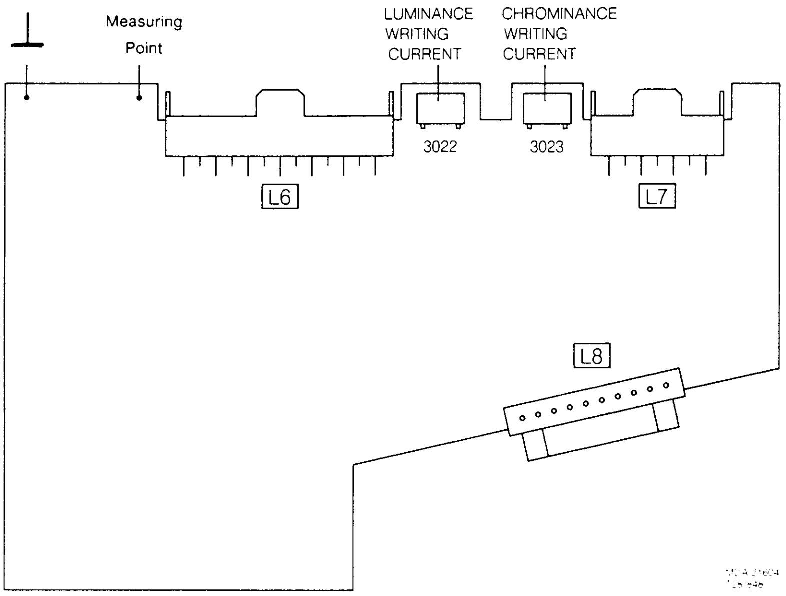
1. Instelling van de schrijfstroom voor het helderheidsignaal (3022)
- Geen signaal ingeven (programma E1)
- toestel op "OPNAME" schakelen
- op de schrijfstroommeetpin een oscilloscoop aansluiten
- de massa van de oscilloscoop met de massapin en de afscherming van de kopversterker verbinden
- weerstand 3022 zodanig instellen dat de amplitude van het signaal 105mVtt (voor toestellen zonder video-longplay) of 95mVtt (voor toestellen met video-longplay) bedraagt.

2. Instelling van de schrijfstroom voor het chromasignaal (3023)
- met een testbeeldgenerator via de euroconnector (programma E1) een roodbeeld-videosignaal ingeven
- toestel op "OPNAME" schakelen
- op de schrijfstroommeetpin een oscilloscoop aansluiten
- de massa van de oscilloscoop met de massapin en de afscherming van de kopversterker verbinden
- Pin 4L6 met de massa verbinden
- weerstand 3023 zodanig instellen dat de amplitude van het signaal -12 dB (betrokken op het helderheidsignaal) bedraagt (25mVtt).

Ajustages sur l'amplificateur de tête

1. Réglage du courant d'écriture de luminance (3022)
- ne pas appliquer de signal (programme E1)
- positionner l'appareil sur la position Enregistrement"
- brancher un oscilloscope sur la broche de mesure du courant d'écriture
- relier la masse de l'oscilloscope à la broche de masse et au blindage de l'amplificateur de tête.
- régler la résistance 3022 de telle façon que l'amplitude du signal s'élève à 105 mVcc pour les appareils sans "Long-Play" et à 95 mVcc pour les appareils dotés d'un "Long-Play".

2. Réglage du courant d'écriture de chrominance (3023)
- appliquer à l'Euroconnecteur (programme E1) un signal vidéo rouge à l'aide d'un générateur de mire d'essai
- mettre l'appareil en position "Enregistrement"
- brancher un oscilloscope sur la broche de mesure du courant d'écriture
- relier la masse de l'oscilloscope à la broche de masse et au blindage de l'amplificateur de tête
- relier la broche 4L6 à la masse
- régler la résistance 3023 de telle façon que l'amplitude du signal (se rapportant au signal de luminance) s'élève à -12dB (25mV)



Ajustes del amplificador de cabezas

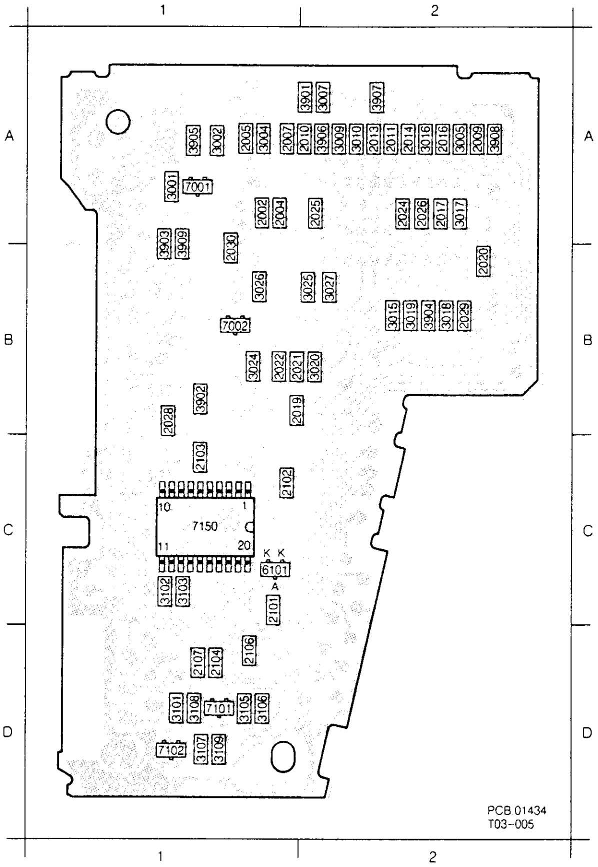
1. Regulación de la luminancia-corriente de escritura (3022)
- No alimentar ninguna señal (Programa E1)
- Poner el aparato en posición de "GRABACION"
- Conectar un osciloscopio al conector de medición de la corriente de escritura
- Conectar la masa del osciloscopio con el conector de masa y la protección antiparasitaria del amplificador de cabezas
- Regular la resistencia 3022 de forma que la amplitud de la señal sea de 105 mVss (para aparatos sin Video-Longplay), o 95 mVss (para paratos con Video-Longplay)

2. Regulación de la corriente de escritura-crominancia (3023)
- Mediante un generador de carta de ajuste, aportar una señal de video roja por el euroconector (Programa El)
- Poner el aparato en posición de "GRABACION"
- Conectar un osciloscopio al conector de medición de la corriente de escritura
- Conectar la masa del osciloscopio con la aguja de masa y la protección antiparasitaria del amplificador de cabezal
- Conectar la clavija 4L6 con la masa
- Regular la resistencia 3023 de modo que la amplitud de la señal (con relación a la señal de luminancia) sea de -12 dB (25mV).

Regolazioni al preamplificatore testine

1. Regolazione della corrente di registrazione di luminanza (3022)
- non applicare nessun segnale (programma E1)
- portare l'apparecchio in posizione "REGISTRAZIONE"
- collegare un'oscilloscopio al Pin di misurazione della corrente di registrazione
- collegare la massa dell'oscilloscopio con il Pin collegato a massa e con la schermatura del preamplificatore testine
- regolare il potenziometro 3022 in modo che l'ampiezza del segnale indichi 105mVpp (per apparecchi senza "Video-Longplay") o 95mVpp (per apparecchi con "Video-Longplay")

2. Regolazione della corrente di registrazione di crominanza (3023)
- applicare un segnale video completamente rosso al connettore EURO (programma E1) con un generatore di segnale test
- portare l'apparecchio in posizione "REGISTRAZIONE"
- collegare un'oscilloscopio al Pin di misurazione della corrente di registrazione
- collegare la massa dell'oscilloscopio con il Pin collegato a massa e con la schermatura del preamplificatore testine
- collegare Pin 4L6 con la massa
- regolare il potenziometro 3023 in modo che l'ampiezza del segnale sia -12dB (rispetto al segnale di luminanza) (25mV)



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2007	A1
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2011	A2
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2014	A2
2016	A2
2017	A2
2019	B2
2020	B2
2021	B2
2022	B1
2024	A2
2025	A2
2026	A2
2028	B1
2029	B2
2030	B1
2101	C1
2102	C1
2103	C1
2104	D1
2106	D1
2107	D1
3001	A1
3002	A1
3004	A1
3005	A2
3007	A2
3009	A2
3010	A2
3015	B2
3016	A2
3017	A2
3018	B2
3019	B2
3020	B2
3024	B1
3025	B2
3026	B1
3027	B2
3101	D1
3102	C1
3103	C1
3105	D1
3106	D1
3107	D1
3108	D1
3109	D1
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3902	B1
3903	B1
3904	B2
3905	A1
3906	A2
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7002	B1
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7102	D1
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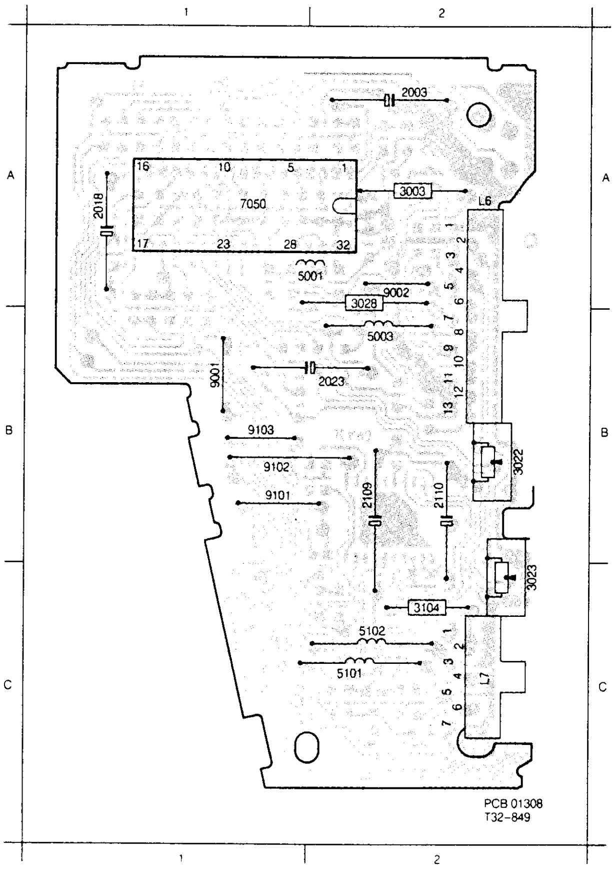

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2023	B2
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2110	B2
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5001	A2
5003	B2
5101	C2
5102	C2
7050	A1
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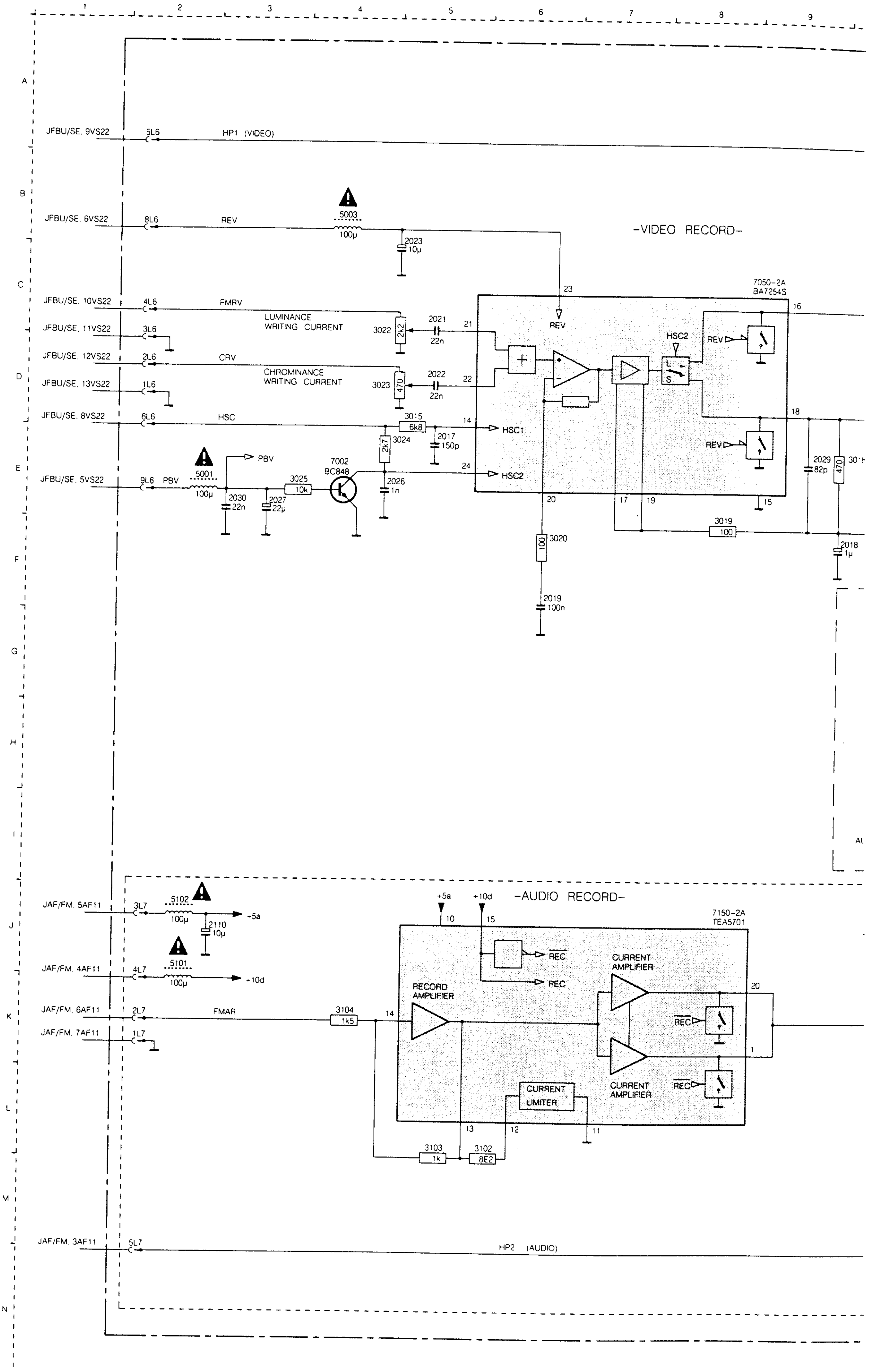
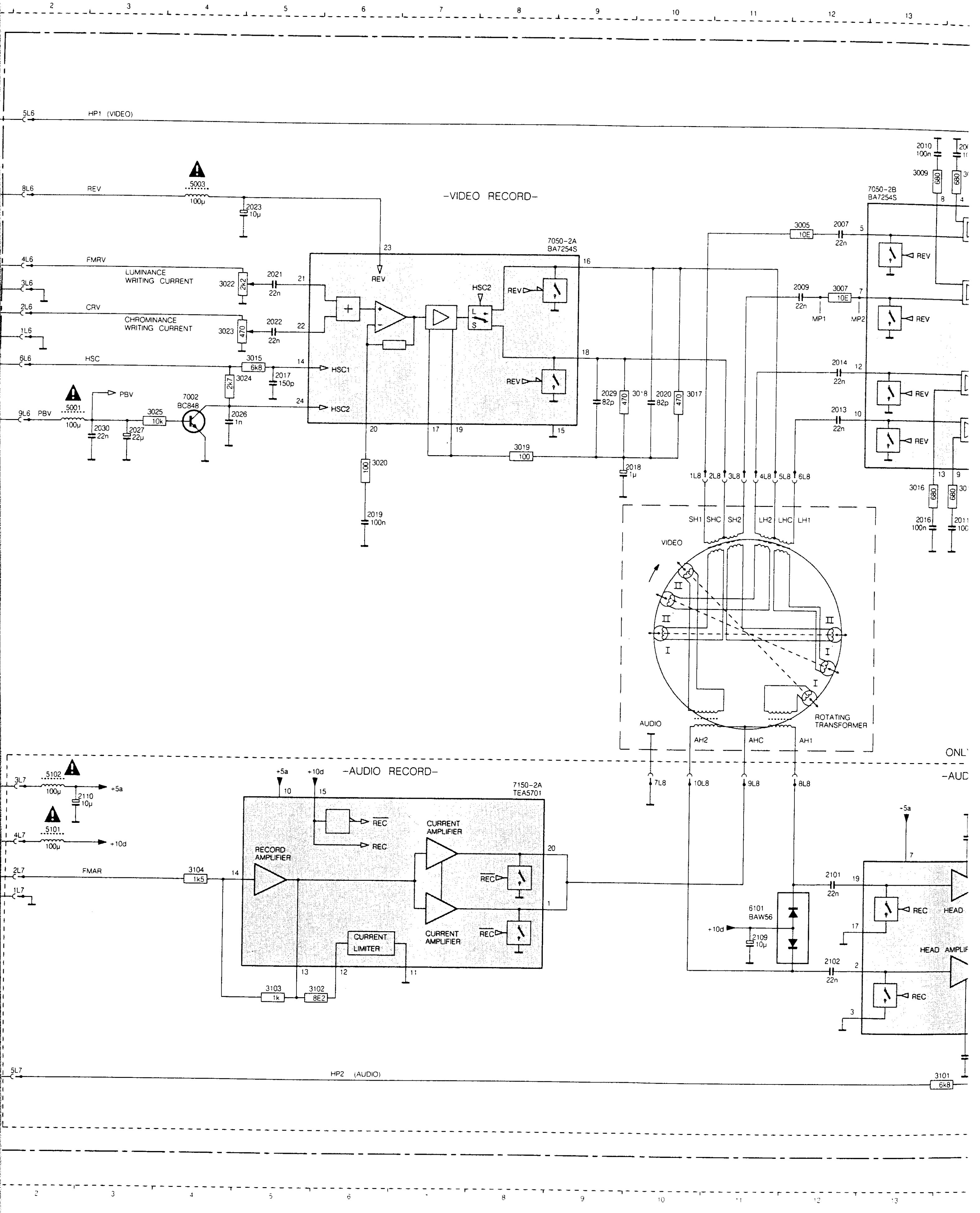
9103	B1
L6	A2
L7	C2

Head amplifier HV4/2


JFBU/SE. 9VS22
5L6
HP1 (VIDEO)
JFBU/SE. 6VS22
8L6
REV
5003
100µ
2023
10µ
-VIDEO RECORD-
7050-2A
BA7254S
JFBU/SE. 10VS22
4L6
FMRV
LUMINANCE
WRITING CURRENT
3022
2k2
2021
22n
JFBU/SE. 11VS22
3L6
JFBU/SE. 12VS22
2L6
CRV
CHROMINANCE
WRITING CURRENT
3023
470
2022
22n
JFBU/SE. 13VS22
1L6
JFBU/SE. 8VS22
6L6
HSC
3015
6k8
2017
150p
3024
2k7
HSC1
HSC2
PBV
7002
BC848
JFBU/SE. 5VS22
9L6
5001
100µ
2030
22n
2027
22µ
3025
10k
2026
1n
REV
L
S
3019
100
2029
82p
470
2018
1µ
3020
100
2019
100n
-AUDIO RECORD-
JAF/FM. 5AF11
3L7
5102
100µ
+5a
2110
10µ
JAF/FM. 4AF11
4L7
5101
100µ
+10d
JAF/FM. 6AF11
2L7
FMAR
3104
1k5
JAF/FM. 7AF11
1L7
7150-2A
TEA5701
REC
RECORD
AMPLIFIER
CURRENT
AMPLIFIER
CURRENT
LIMITER
3103
1k
3102
8E2
JAF/FM. 3AF11
5L7
HP2 (AUDIO)
A B C D E F G H I J K L M N
1 2 3 4 5 6 7 8 9


-VIDEO RECORD-
-AUDIO RECORD-
5L6 HP1 (VIDEO)
8L6 REV
5003 100µ
2023 10µ
4L6 FMRV
LUMINANCE WRITING CURRENT
3L6
3022 2k2
2021 22n
2L6 CRV
CHROMINANCE WRITING CURRENT
1L6
3023 470
2022 22n
6L6 HSC
3015 6k8
3024 2k7
2017 150p
9L6 PBV
5001 100µ
2030 22n
2027 22µ
3025 10k
7002 BC848
2026 1n
PBV
7050-2A BA7254S
REV
HSC1
HSC2
L
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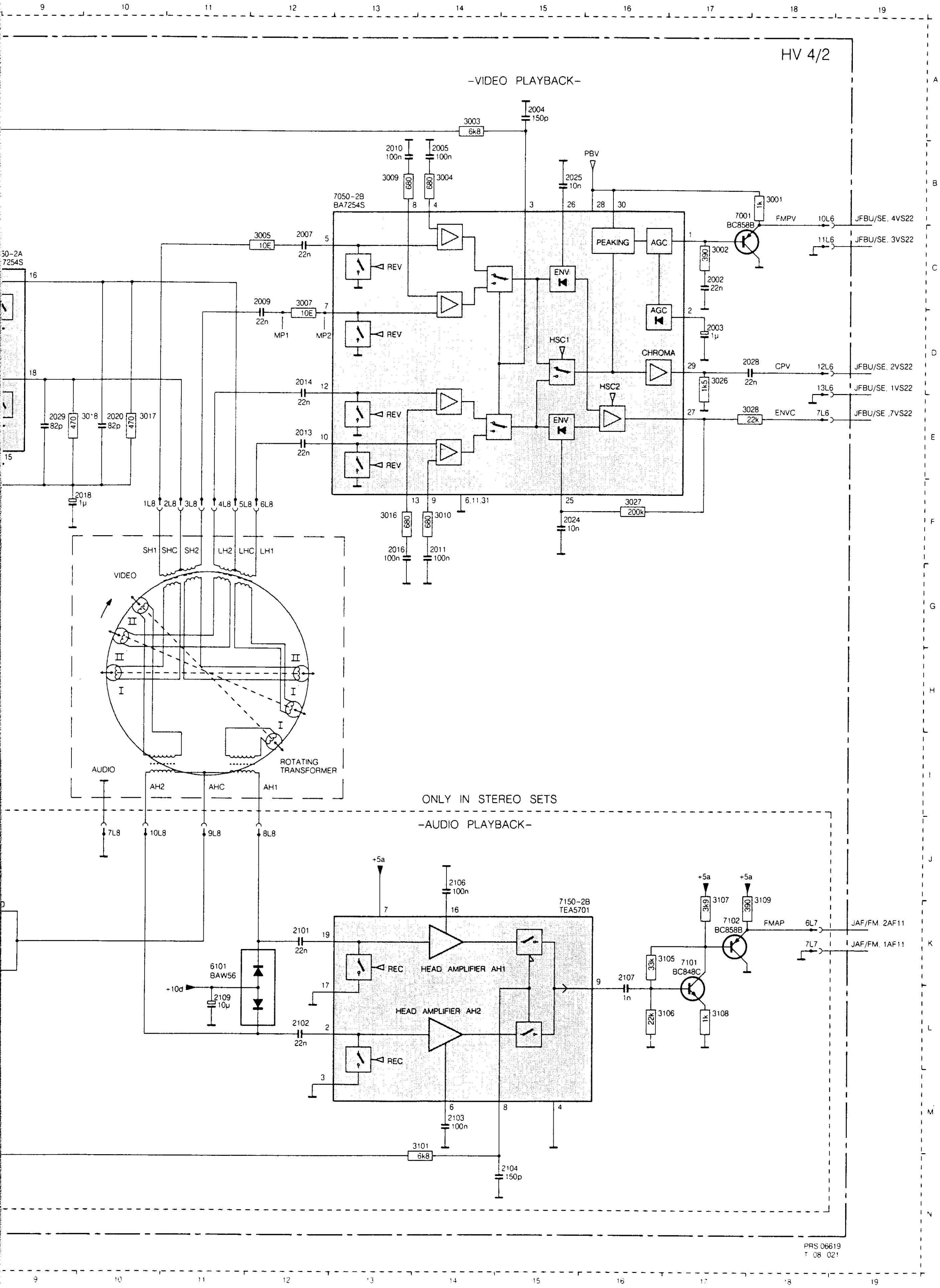
20 17 19 15
3020 100
2019 100n
3019 100
2029 82p
3018 470
2020 82p
3017 470
2018 1µ
7050-2B BA7254S
2010 100n
3009 680
3005 10E
2007 22n
2009 22n
3007 10E
MP1
MP2
2014 22n
2013 22n
3016 680
2016 100n
1L8 2L8 3L8 4L8 5L8 6L8
SH1 SHC SH2 LH2 LHC LH1
VIDEO
I
II
ROTATING TRANSFORMER
AUDIO
AH2 AHC AH1
7L8 10L8 9L8 8L8
ONLY
-AUD
3L7
5102 100µ
2110 10µ
+5a
4L7
5101 100µ
+10d
2L7 FMAR
1L7
3104 1k5
7150-2A TEA5701
RECORD AMPLIFIER
CURRENT AMPLIFIER
CURRENT LIMITER
REC
3103 1k
3102 8E2
6101 BAW56
2109 10µ
2101 22n
2102 22n
HEAD
HEAD AMPLIF
5L7 HP2 (AUDIO)
3101 6k8
2 3 4 5 6 7 8 9 10 11 12 13


HV 4/2
-VIDEO PLAYBACK-
2004 150p
3003 6k8
2010 100n
2005 100n
3009 680
3004 680
7050-2B BA7254S
2025 10n
PBV
3001 1k
7001 BC858B
FMPV
10L6
JFBU/SE. 4VS22
11L6
JFBU/SE. 3VS22
3005 10E
2007 22n
PEAKING
AGC
3002 390
2002 22n
REV
ENV
2009 22n
3007 10E
MP1
MP2
AGC
2003 1µ
HSC1
CHROMA
2028 22n
CPV
12L6
JFBU/SE. 2VS22
3026 1k5
13L6
JFBU/SE. 1VS22
HSC2
2014 22n
3028 22k
ENVC
7L6
JFBU/SE .7VS22
2013 22n
2029 82p
3018 470
2020 82p
3017 470
2018 1µ
6,11,31
3027 200k
2024 10n
3016 680
3010 680
2016 100n
2011 100n
50-2A
7254S
1L8
2L8
3L8
4L8
5L8
6L8
SH1
SHC
SH2
LH2
LHC
LH1
VIDEO
ROTATING TRANSFORMER
AUDIO
AH2
AHC
AH1
ONLY IN STEREO SETS
-AUDIO PLAYBACK-
7L8
10L8
9L8
8L8
+5a
2106 100n
7150-2B TEA5701
+5a
+5a
3107 3k9
3109 390
7102 BC858B
FMAP
6L7
JAF/FM. 2AF11
7L7
JAF/FM. 1AF11
2101 22n
REC
HEAD AMPLIFIER AH1
6101 BAW56
+10d
2109 10µ
3105 33k
7101 BC848C
2107 1n
HEAD AMPLIFIER AH2
3106 22k
3108 1k
2102 22n
REC
2103 100n
3101 6k8
2104 150p
PRS 06619
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2002	C17
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2007	C12
2009	C12
2010	B13
2011	F14
2013	E12
2014	D12
2016	F13
2017	E5
2018	F9
2019	F6
2020	E10
2021	C5
2022	D5
2023	C5
2024	F15
2025	B15
2026	E4
2027	E3
2028	D18
2029	E9
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2101	K12
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2103	M14
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2107	K16
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3004	B14
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3007	C12
3009	B13
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3016	F13
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3018	E10
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3102	L6
3103	L5
3104	K4
3105	K16
3106	L16
3107	K17
3108	L17
3109	K18
5001	E2
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5101	J2
5102	J2
6101	K11
7001	B17
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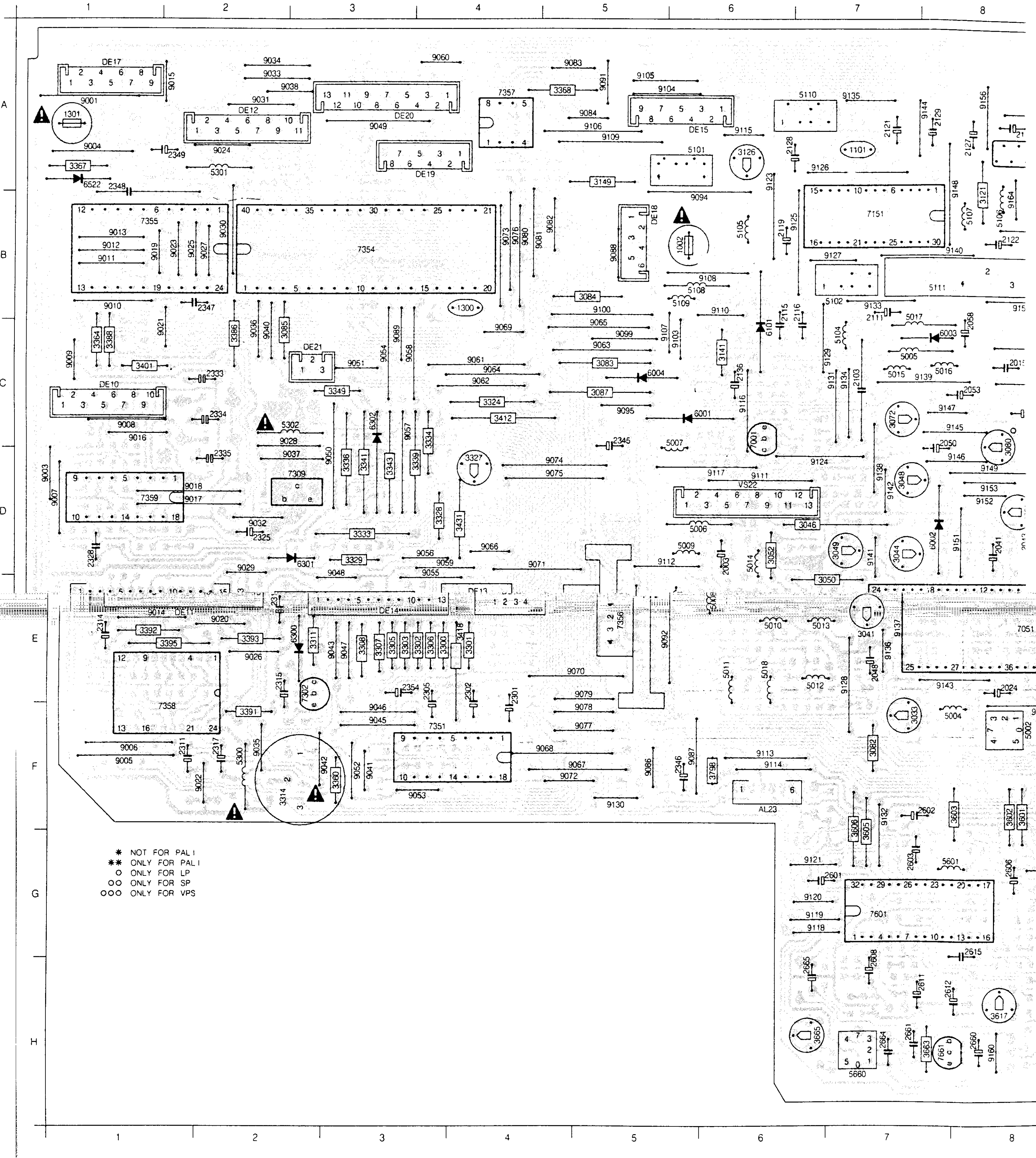
7150	J8
7150	K15

Family board unit JFBU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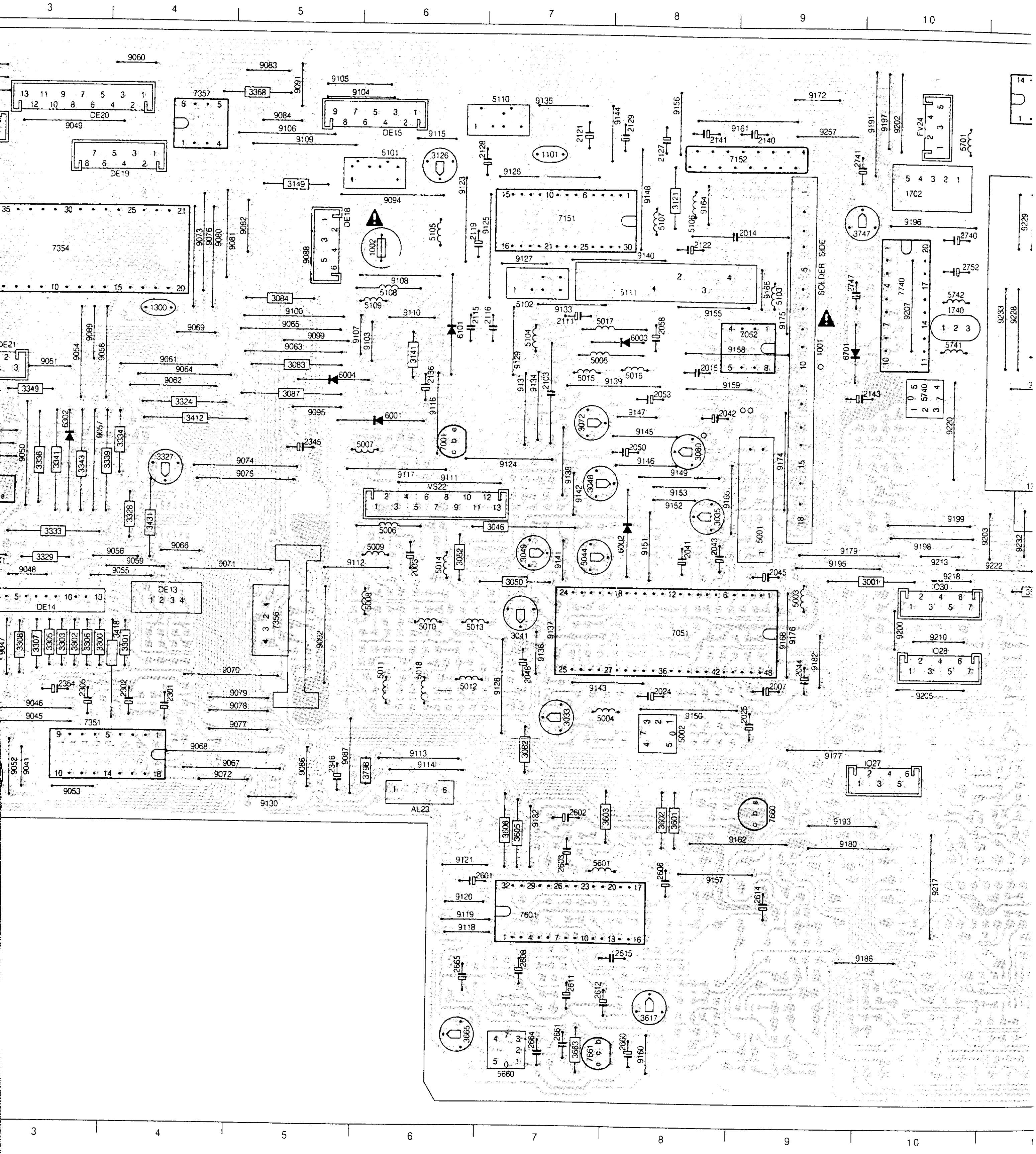
2612
2661
2664
3663
2660
9160
9140
2122
5107
5106
3121
9164
9148
2127
2012
2015

* NOT FOR PAL I
** ONLY FOR PAL I
○ ONLY FOR LP
○○ ONLY FOR SP
○○○ ONLY FOR VPS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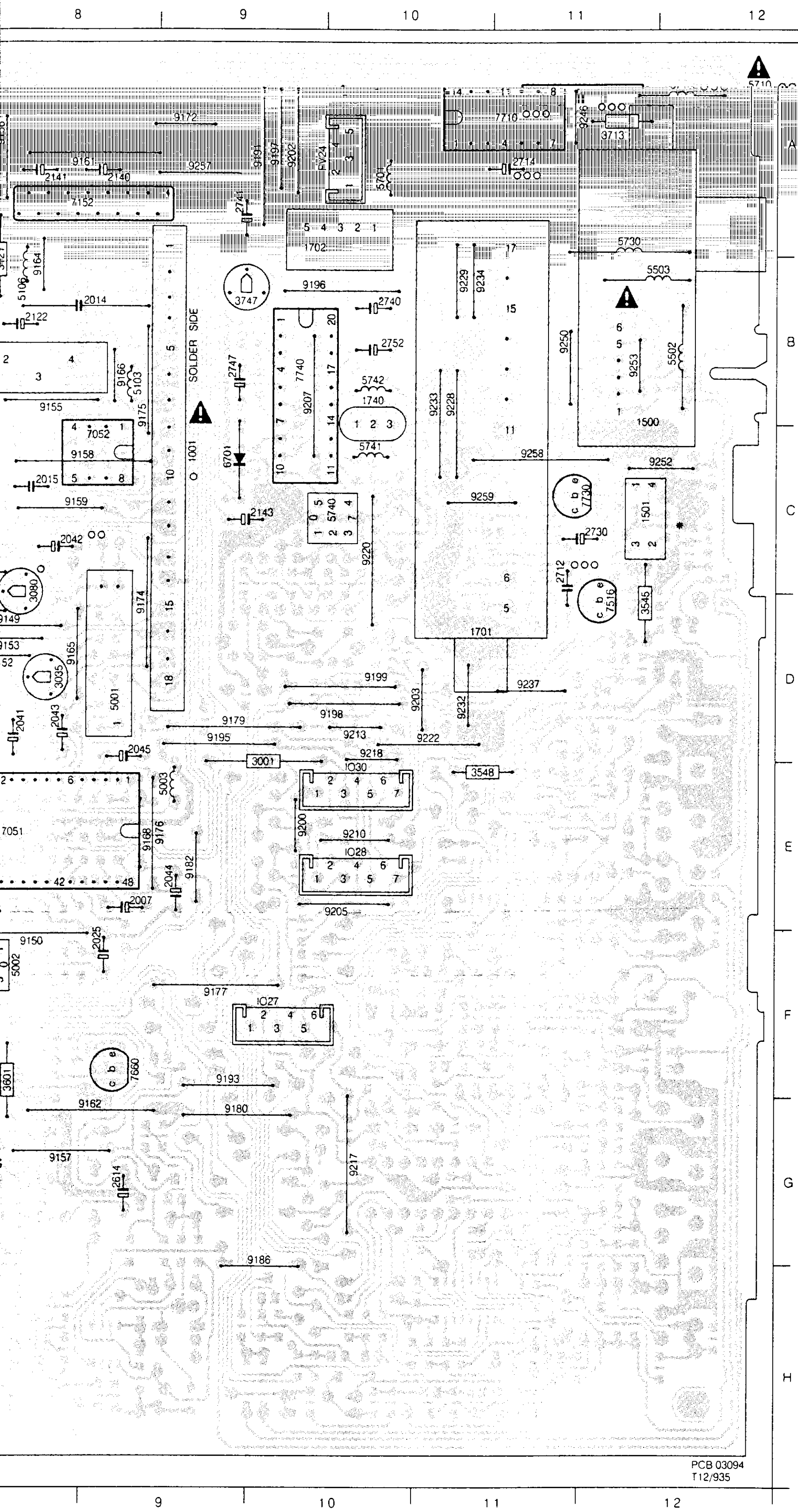
2007
2025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SOLDER SIDE
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FV24
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6701
2747
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9166
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9155
7052
9158
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9180
9157
2614
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9186
5106
9164
2014
2122

PCB 03094
T12/935

1001	C9	3364	C1	9024	A2	9157	G8
1002	B6	3367	A1	9025	B2	9158	C8
1101	A7	3368	A5	9026	E2	9159	C8
1300	B4	3386	C2	9027	B2	9160	H8
1301	A1	3388	C1	9028	C2	9161	A8
1500	[illegible]	3391	F2	9029	C2	9162	G9
1501	C12	3392	E1	9030	B2	9164	B8
1701	D11	3393	E2	9031	A2	9165	D8
1702	A10	3395	E1	9032	D2	9166	B9
1740	B10	3401	C1	9033	A2	9168	E9
2003	E6	3412	C4	9034	A2	9172	A9
2007	E9	3418	E4	9035	F2	9174	D9
2014	B9	3431	D4	9036	C2	9175	C9
2015	C8	3545	D12	9037	D2	9176	E9
2024	E8	3548	B11	9038	A2	9177	F9
2025	F9	3601	F8	9040	C2	9179	D9
2041	D8	3602	F8	9041	F3	9180	G9
2042	C8	3603	F8	9042	F3	9182	E9
2043	D8	3605	G7	9043	E3	9186	G10
2044	E9	3606	G7	9045	F3	9191	A10
2045	D9	3617	H8	9046	F3	9193	F9
2048	E7	3663	H7	9047	E3	9195	D9
2050	C8	3665	H6	9048	E3	9196	B10
2053	C8	3713	A12	9049	A3	9197	A10
2058	C8	3747	B9	9050	D3	9198	D10
2103	C7	3798	F6	9051	C3	9199	D10
2111	C7	5001	D9	9052	F3	9200	E10
2115	C6	5002	F8	9053	F3	9202	A10
2116	C7	5003	E9	9054	C3	9203	D11
2119	B6	5004	F7	9055	E4	9205	E10
2121	A7	5005	C7	9056	D4	9207	B10
2122	B8	5006	D6	9057	C3	9210	E10
2127	A8	5007	C5	9058	C3	9213	D10
2128	A6	5008	E6	9059	D4	9217	G10
2129	A8	5009	D6	9060	A4	9218	D10
2136	C6	5010	E6	9061	C4	9220	C10
2140	A9	5011	E6	9062	C4	9222	D11
2141	A8	5012	E6	9063	C5	9228	B11
2143	C10	5013	E6	9064	C4	9229	B11
2301	F4	5014	D6	9065	C5	9232	D11
2302	E4	5015	C7	9066	D4	9233	B11
2305	E3	5016	C8	9067	F4	9234	B11
2311	F1	5017	B7	9068	F4	9237	D11
2313	E2	5018	E6	9069	C4	9246	A12
2314	E1	5101	A6	9070	E4	9250	B11
2315	E2	5102	B7	9071	D4	9252	C12
2317	F2	5103	B9	9072	F4	9253	B12
2325	D2	5104	C7	9073	B4	9257	A9
2328	D1	5105	B6	9074	D5	9258	C11
2333	C2	5106	B8	9075	D5	9259	C11
2334	C2	5107	B8	9076	B4	AL23	F6
2335	D2	5108	B6	9077	F5	DE10	C1
2345	C5	5109	B6	9078	F5	DE11	E1
2346	F5	5110	A7	9079	E5	DE12	A2
2347	B2	5111	B8	9080	B4	DE13	E4
2348	A1	5300	F2	9081	B5	DE14	E3
2349	A2	5301	A2	9082	B5	DE15	A6
2354	E3	5302	C2	9083	A5	DE17	A1
2601	G6	5502	B12	9084	A5	DE18	B5
2602	F7	5503	B12	9086	F5	DE19	A3
2603	G7	5601	G7	9087	F5	DE20	A3
2606	G8	5660	H7	9088	B5	DE21	C3
2608	H7	5701	A10	9089	C3	FV24	A10
2611	H7	5710	A12	9091	A5	IO27	F10
2612	H7	5730	A12	9092	E5	IO28	E10
2614	G9	5740	C10	9094	B6	IO30	E10
2615	G8	5741	C10	9095	C5	VS22	D6
2660	H8	5742	B10	9099	C5		
2661	H7	6001	C6	9100	B5		
2664	H7	6002	D8	9103	C6		
2665	H6	6003	C8	9104	A5		
2712	C11	6004	C5	9105	A5		
2714	A11	6101	C6	9106	A5		
2730	C12	6300	E2	9107	C5		
2740	B10	6301	D3	9108	B6		
2741	A9	6302	C3	9109	A5		
2747	B9	6522	A1	9110	B6		
2752	B10	6701	C9	9111	D6		
3001	E10	7001	D6	9112	D5		
3033	F7	7051	E8	9113	F6		
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3041	E7	7151	B7	9115	A6		
3044	D7	7152	A8	9116	C6		
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3048	D7	7309	D2	9118	G6		
3049	D7	7351	F3	9119	G6		
3050	E7	7354	B3	9120	G6		
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3072	C7	7356	E5	9123	A6		
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3082	F7	7358	F1	9125	B7		
3083	C5	7359	D1	9126	A7		
3084	B5	7516	D12	9127	B7		
3085	C2	7601	G7	9128	E7		
3087	C5	7660	F9	9129	C7		
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3126	A6	7710	A11	9131	C7		
3141	C6	7730	C12	9132	F7		
3149	A5	7740	B10	9133	B7		
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3303	E3	9005	F1	9137	E7		
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3306	E3	9007	D1	9139	C7		
3307	E3	9008	C1	9140	B8		
3308	E3	9009	C1	9141	D7		
3311	E2	9010	B1	9142	D7		
3314	F2	9011	B1	9143	E7		
3324	C4	9012	B1	9144	A8		
3327	D4	9013	B1	9145	C8		
3328	D4	9014	E1	9146	D8		
3329	D3	9015	A2	9147	C8		
3333	D3	9016	C1	9148	B8		
3334	D4	9017	D2	9149	D8		
3336	D3	9018	D2	9150	F8		
3339	D4	9019	B1	9151	D8		
3341	D3	9020	E2	9152	D8		
3343	D3	9021	C2	9153	D8		
3349	C3	9022	F2	9155	B8		
3360	F3	9023	B2	9156	A8		

2129
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2606
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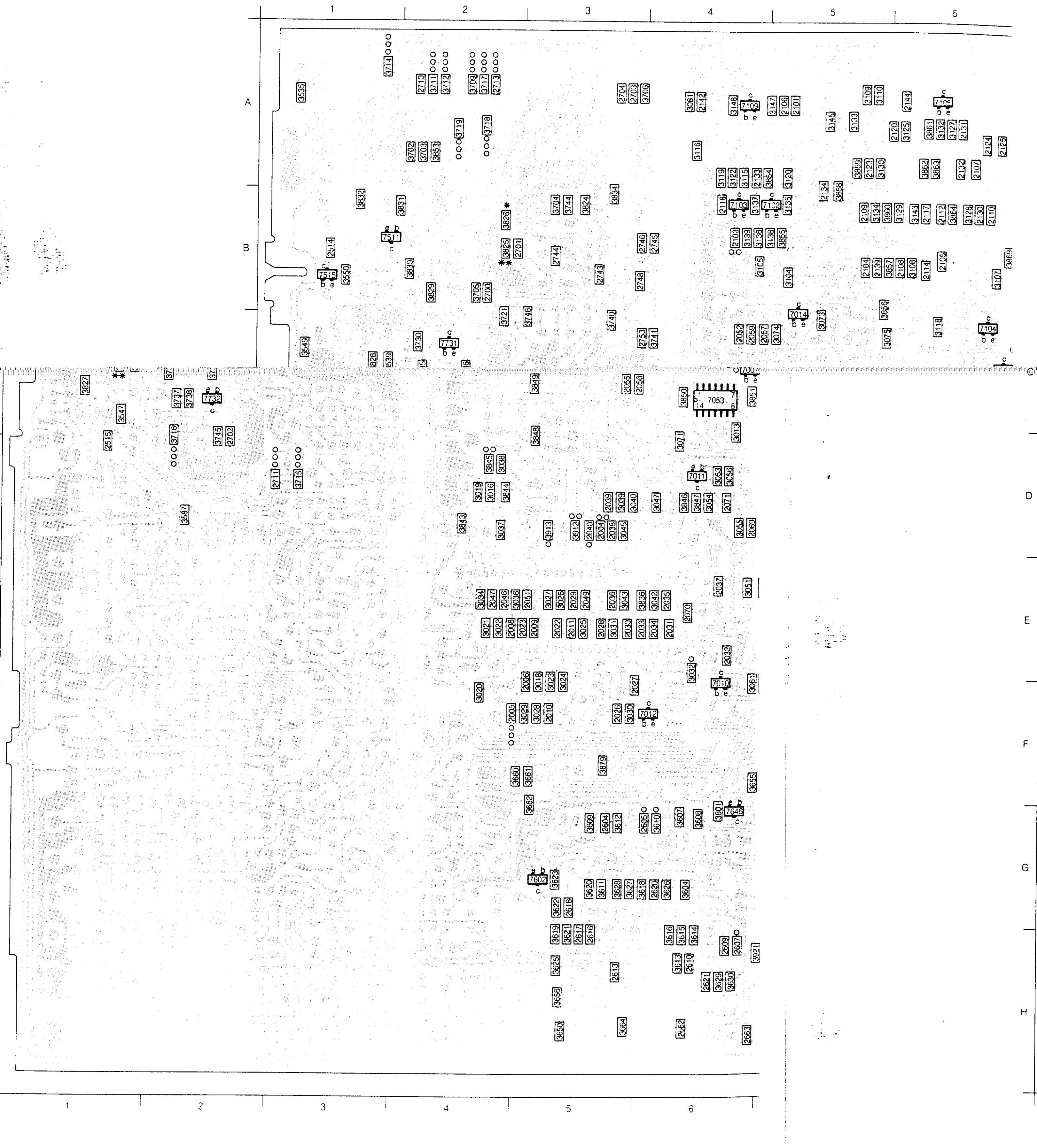
9160
8

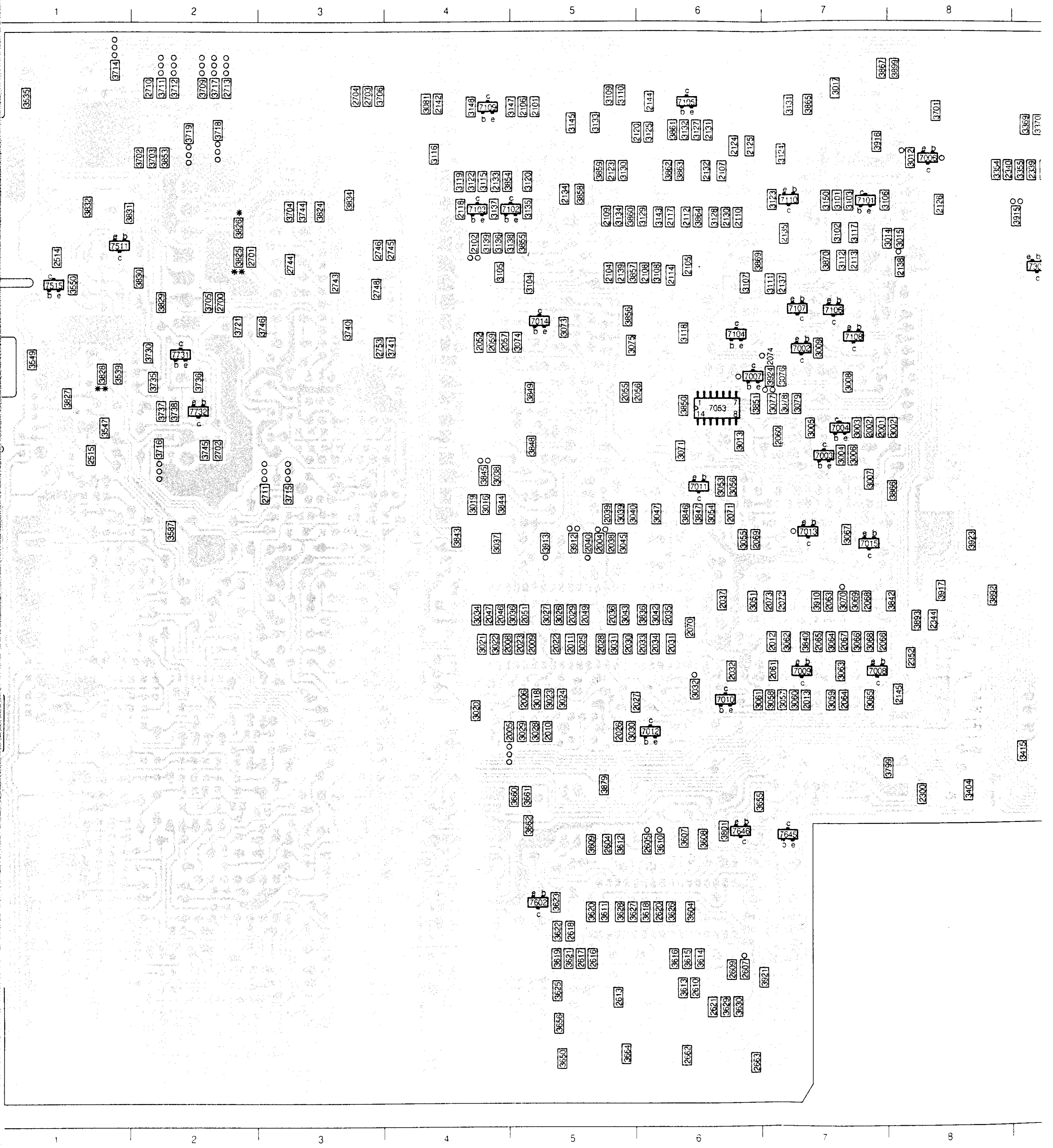
Family board unit JFBU

2001	C7	2029	E5	2052	C4	2072	E7	2118	B4	2144	A6	2323	E12	2350	D12	2607	H6	2710	A2	3009	C7
2002	C7	2030	E5	2055	C5	2073	E7	2120	A6	2145	E8	2324	E12	2351	D10	2609	H6	2711	D3	3012	A8
2004	D5	2031	E6	2056	C6	2074	C7	2123	A5	2300	F8	2326	D11	2352	E8	2610	H6	2713	A2	3013	D6
2005	F5	2032	E6	2057	C4	2101	A5	2124	A6	2303	F9	2327	D12	2353	D10	2613	H5	2743	B3	3014	B8
2006	F5	2033	E6	2059	C4	2102	B4	2125	A6	2304	F10	2329	D12	2355	F9	2616	H5	2744	B3	3015	B8
2008	E5	2034	E6	2060	C7	2104	B5	2126	B8	2306	E9	2330	D12	2356	F10	2617	H5	2745	B4	3016	D4
2009	E5	2035	E6	2061	E7	2105	B6	2130	B6	2307	E9	2331	D12	2358	F9	2618	G5	2746	B3	3017	A7
2010	F5	2036	E5	2063	E7	2106	A5	2131	A6	2308	E9	2332	D12	2359	E9	2620	G6	2748	B3	3018	F5
2011	E5	2037	E6	2064	F7	2107	A6	2132	A6	2309	E9	2336	D12	2362	E9	2621	H6	2753	C3	3019	D4
2012	E7	2038	D5	2065	E7	2108	B6	2133	A4	2312	F12	2337	A11	2363	D12	2662	H6	3002	C8	3020	F4
2013	F7	2039	D5	2066	E7	2109	B5	2134	B5	2316	E12	2339	A9	2364	F10	2663	H6	3003	C7	3021	E4
2022	E5	2040	D5	2067	E7	2110	B6	2135	B7	2318	E12	2340	A8	2370	B10	2700	B2	3004	D7	3022	E4
2023	E5	2046	E4	2068	E7	2112	B6	2137	B7	2319	E12	2341	A11	2514	B1	2701	B2	3005	C7	3023	F5
2026	F5	2047	E4	2069	D6	2113	B7	2138	B8	2320	E12	2342	B10	2515	D1	2702	D2	3006	D7	3024	F5
2027	F6	2049	E5	2070	E6	2114	B6	2139	B5	2321	E12	2343	B10	2604	G5	2703	A3	3007	D7	3025	E5
2028	E5	2051	E5	2071	D6	2117	B6	2142	A4	2322	E12	2344	E8	2605	G6	2704	A3	3008	C7	3026	E5



mily board unit JFBU

C7	2029	E5	2052	C4	2072	E7	2118	B4	2144	A6	2323	E12	2350	D12	2607	H6	2710	A2	3009	C7	3027	E5	3051	E6	3068	E7	3105	B4
C7	2030	E5	2055	C5	2073	E7	2120	A6	2145	E8	2324	E12	2351	D10	2609	H6	2711	D3	3012	A8	3028	F5	3053	D6	3069	E7	3106	B8
D5	2031	E6	2056	C6	2074	C7	2123	A5	2300	F8	2326	D11	2352	E8	2610	H6	2713	A2	3013	D6	3029	F5	3054	D6	3070	E7	3107	B6
F5	2032	E6	2057	C4	2101	A5	2124	A6	2303	F9	2327	D12	2353	D10	2613	H5	2743	B3	3014	B8	3030	F5	3055	D6	3071	D6	3108	B6
F5	2033	E6	2059	C4	2102	B4	2125	A6	2304	F10	2329	D12	2355	F9	2616	H5	2744	B3	3015	B8	3031	E5	3056	D6	3073	C5	3109	A5
E5	2034	E6	2060	C7	2104	B5	2126	B8	2306	E9	2330	D12	2356	F10	2617	H5	2745	B4	3016	D4	3032	E6	3057	F7	3074	C5	3110	A5
E5	2035	E6	2061	E7	2105	B6	2130	B6	2307	E9	2331	D12	2358	F9	2618	G5	2746	B3	3017	A7	3034	E4	3058	F7	3075	C5	3111	B7
F5	2036	E5	2063	E7	2106	A5	2131	A6	2308	E9	2332	D12	2359	E9	2620	G6	2748	B3	3018	F5	3036	E5	3059	F7	3076	C7	3112	B7
E5	2037	E6	2064	F7	2107	A6	2132	A6	2309	E9	2336	D12	2362	E9	2621	H6	2753	C3	3019	D4	3037	D4	3060	F7	3077	C7	3115	A4
E7	2038	D5	2065	E7	2108	B6	2133	A4	2312	F12	2337	A11	2363	D12	2662	H6	3002	C8	3020	F4	3038	D4	3061	F6	3078	C7	3116	A4
F7	2039	D5	2066	E7	2109	B5	2134	B5	2316	E12	2339	A9	2364	F10	2663	H6	3003	C7	3021	E4	3039	D5	3062	E7	3079	C7	3117	B7
E5	2040	D5	2067	E7	2110	B6	2135	B7	2318	E12	2340	A8	2370	B10	2700	B2	3004	D7	3022	E4	3040	D5	3063	E7	3081	A4	3118	C6
E5	2046	E4	2068	E7	2112	B6	2137	B7	2319	E12	2341	A11	2514	B1	2701	B2	3005	C7	3023	F5	3042	E6	3064	E7	3101	B7	3119	A4
F5	2047	E4	2069	D6	2113	B7	2138	B8	2320	E12	2342	B10	2515	D1	2702	D2	3006	D7	3024	F5	3043	E5	3065	F7	3102	B7	3120	A5
F6	2049	E5	2070	E6	2114	B6	2139	B5	2321	E12	2343	B10	2604	G5	2703	A3	3007	D7	3025	E5	3045	D5	3066	E7	3103	B7	3122	A4
E5	2051	E5	2071	D6	2117	B6	2142	A4	2322	E12	2344	E8	2605	G6	2704	A3	3008	C7	3026	E5	3047	D6	3067	D7	3104	B5	3123	B7



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3013	D6
3014	B8
3015	B8
3016	D4
3017	A7
3018	F5
3019	D4
3020	F4
3021	E4
3022	E4
3023	F5
3024	F5
3025	E5
3026	E5
3027	E5
3028	F5
3029	F5
3030	F5
3031	E5
3032	E6
3034	E4
3036	E5
3037	D4
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3045	D5
3047	D6
3051	E6
3053	D6
3054	D6
3055	D6
3056	D6
3057	F7
3058	F7
3059	F7
3060	F7
3061	F6
3062	E7
3063	E7
3064	E7
3065	F7
3066	E7
3067	D7
3068	E7
3069	E7
3070	E7
3071	D6
3073	C5
3074	C5
3075	C5
3076	C7
3077	C7
3078	C7
3079	C7
3081	A4
3101	B7
3102	B7
3103	B7
3104	B5
3105	B4
3106	B8
3107	B6
3108	B6
3109	A5
3110	A5
3111	B7
3112	B7
3115	A4
3116	A4
3117	B7
3118	C6
3119	A4
3120	A5
3122	A4
3123	B7
3124	A7
3125	A6
3127	A6
3128	B6
3129	B6
3130	A5
3131	A7
3132	A6
3133	A5
3134	B5
3135	B5
3136	B4
3137	B4
3138	B5
3139	B4
3143	B6
3145	A5
3147	A5
3148	A4
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3354	A8
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3359	F11
3362	F12
3363	F11
3365	C12
3366	D12
3369	A9
3370	A9
3371	E12
3372	E11
3373	D11
3376	D12
3377	D12
3378	D12
3379	D12
3380	D12
3382	C11
3383	C11
3384	D11
3385	D12
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3550	B1
3587	D2
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3607	G6
3608	G6
3609	G5
3610	G6
3611	G5
3612	G5
3613	H6
3614	H6
3615	H6
3616	H6
3618	G6
3826	B2
3827	C1
3828	C1
3829	B2
3830	B2
3831	B2
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3845	D4
3846	D6
3847	D6
3848	D5
3849	C5
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3857	B5
3858	B5
3859	A5
3860	B5
3861	A6
3862	A6
3863	A6
3864	B6
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7007	C6
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7013	D7
7014	C5
7015	D7
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7104	C6
7105	A6
7106	B7
7107	B7
7108	C7
7109	A4
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7300	E10
7301	E10
7303	F10
7304	D9
7305	D10
7306	B9
7307	B11
7308	A10
7350	F10
7352	D9
7353	D10
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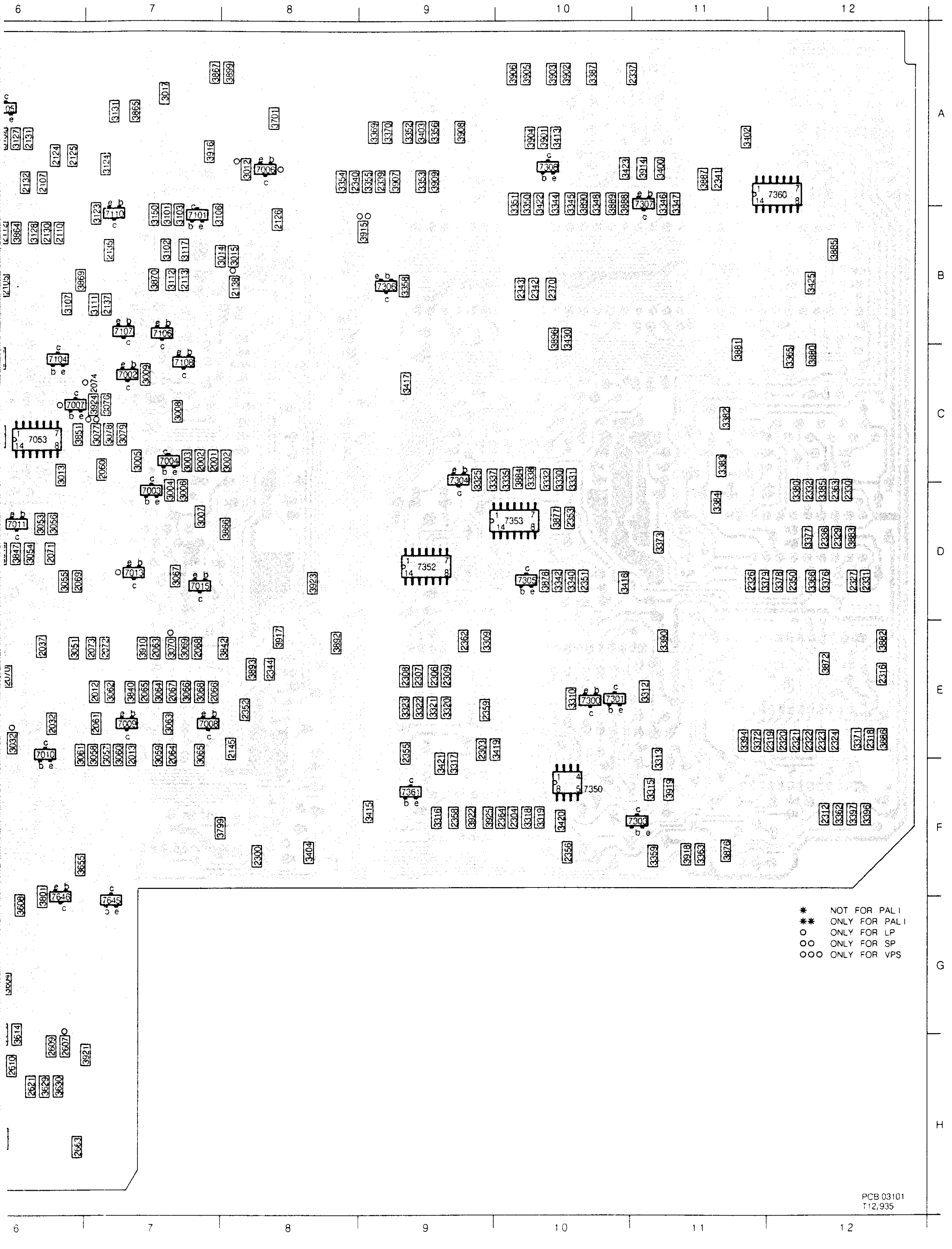
7731	C2
7732	C2



* NOT FOR PAL I
** ONLY FOR PAL I
○ ONLY FOR LP
○○ ONLY FOR SP
○○○ ONLY FOR VPS

Settings on JFBU/SE

1. Chroma VCO (3126)

- Connect a frequencymeter to pin 4 of plug DE17
- Switch the recorder to the "standby" mode
- Adjust to 4.433619 MHz ± 20 Hz at the frequency meter

2. E-E level (3035)

- Connect a pattern generator to the Euroconnector and feed a white picture (program E1)
- Bring recorder into the "stop" position
- Connect an oscilloscope to pin 48 of IC7051
- Adjust the amplitude of the output voltage to 1,8 V_{ss} ± 0,05 V_{ss}

3. Luminance playback level (3033)

- Reproduce a white picture recorded on cassette
- Connect an oscilloscope to pin 48 of IC7051
- Adjust the amplitude of the output voltage to 1.8 V_{ss} ± 0,05 V_{ss}

4. Synchronisation frequency (3048)

- Bring unit into record mode
- Do not feed a signal (program E1)
- Connect a frequency meter to 10VS22
- Adjust to 3.8 MHz ± 15 kHz with (3048)

5. White clip, dark clip (3041,3049)

- Bring unit into stop mode
- Connect a pattern generator and feed a white picture (program E1)
- Connect an oscilloscope to connection 20 of IC7051
- Adjust the ratio U1/U2 = 0.87 ± 0,03 with 3041 (see Fig. 1)
- Adjust the ratio U3/U2 = 0,55 ± 0,03 with 3049 (see Fig. 1)

6. White frequency (3044)

- Connect a pattern generator and feed a white picture (program E1)
- Bring the recorder into the "record" mode
- Connect a frequency counter to the jack 10VS22
- Adjust to 4.6 MHz ± 15kHz with 3044

7. Drop-out sensitivity (3080)

method 1:
- Reproduce test cassette 4822 397 30108
- Adjust 3080 so that the noise in surface A (see Fig. 2) just disappears during the drop-out test signal

NB: The drop-out signal is only present on part of the test tape.

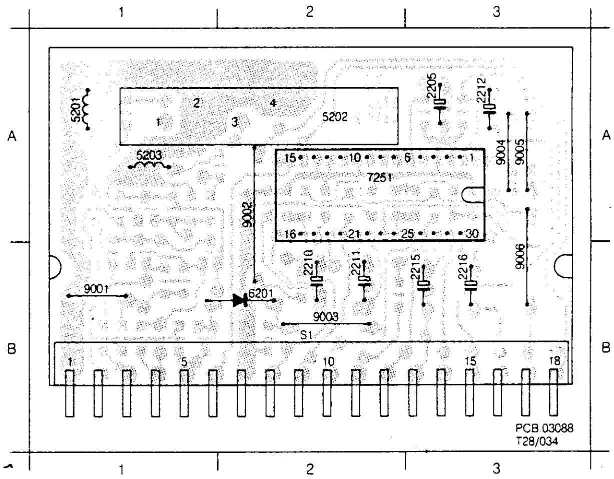
method 2:
- Connect Ya input of the oscilloscope to pin 6 of the LPS subprint
- Connect Yb input of the oscilloscope to pin 16 of the LPS subprint
- Invert Yb at the oscilloscope and add to Ya
- Connect a pattern generator and feed a white picture (program E1)
- Bring the recorder into the "stop, LP" mode
- Set the signal difference of the white level to a minimum with 3080

8. Setting of the balance of the noise suppression (3072)

- Reproduce a white picture recorded on cassette
- Connect an oscilloscope to pin 9 of the LPS subprint
- Adjust the signal to a minimum with 3072

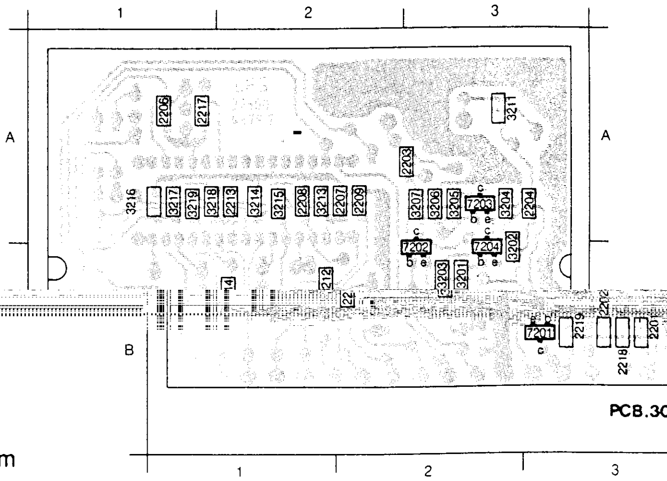
Longplay subprint LPS

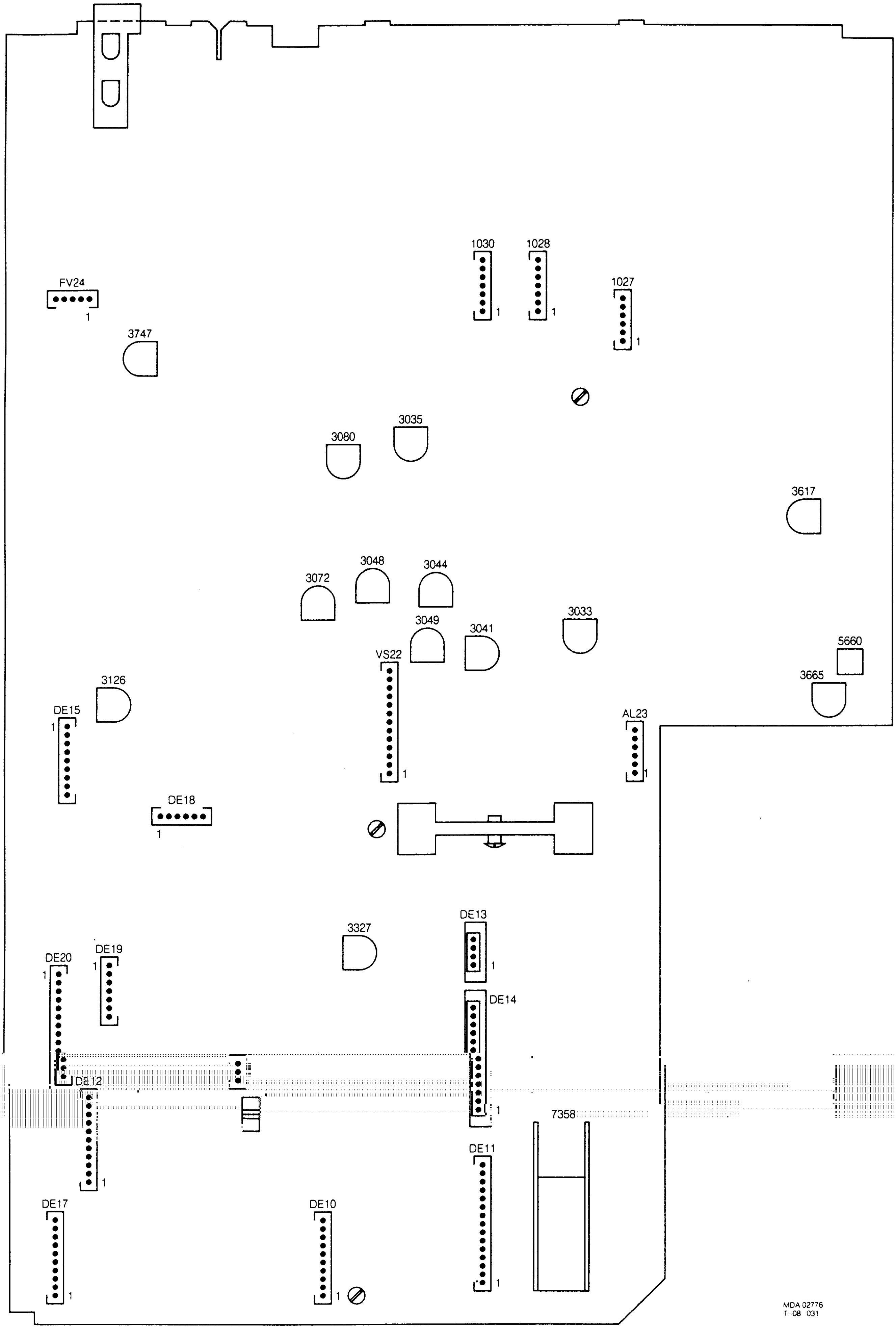
S1	B2	2215	B3	6201	B2	9004	A3
2205	A3	2216	B3	7251	A2	9005	A3
2210	B2	5201	A1	9001	B1	9006	B3
2211	B2	5202	A2	9002	A2		
2212	A3	5203	A1	9003	B2		



For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk

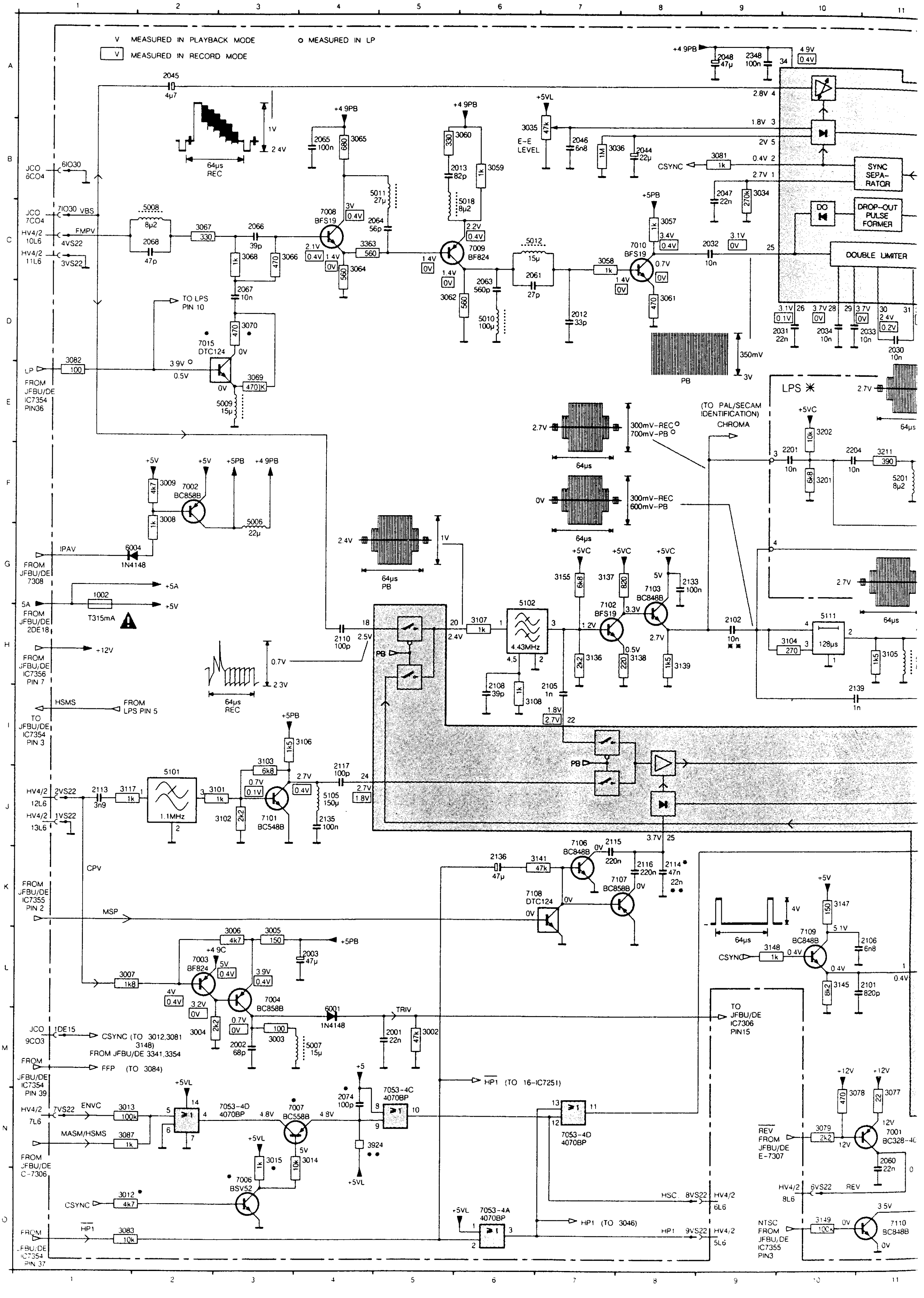
2201	B3	2213	A2	3204	A3	3215	A2	7204	B3
2202	B3	2214	B2	3205	A3	3216	A1		
2203	A3	2217	A1	3206	A3	3217	A1		
2204	A3	2218	B3	3207	A3	3218	A1		
2206	A1	2219	B3	3211	A3	3219	A1		
2207	A2	3201	B3	3212	B2	7201	B3		
2208	A2	3202	B3	3213	A2	7202	B2		
2209	A2	3203	B3	3214	A2	7203	A3		

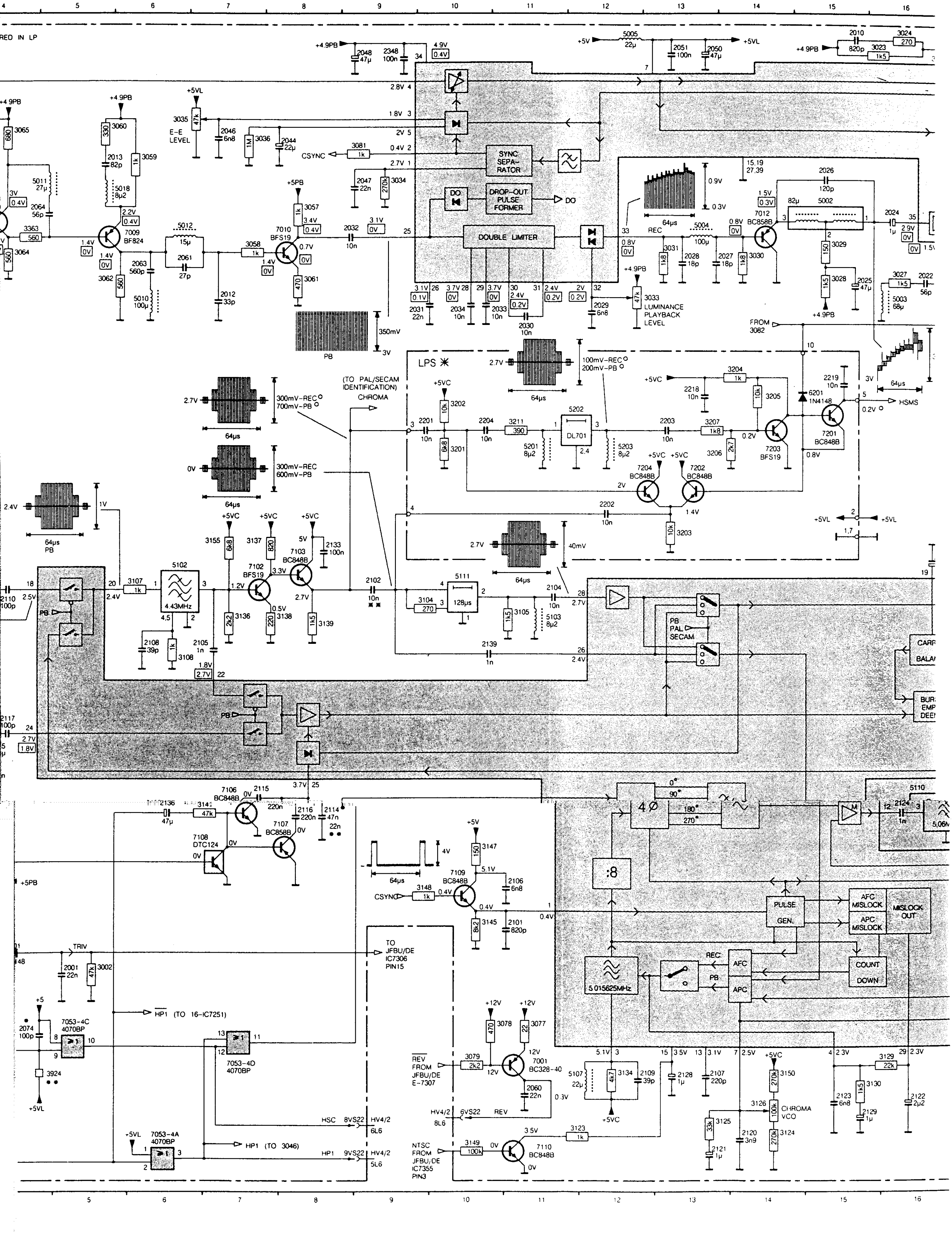



1030
1028
1027
1
1
1
FV24
1
3747
3035
3080
3617
3048
3044
3072
3049
3041
3033
5660
VS22
3665
3126
DE15
1
AL23
1
1
DE18
1
3327
DE13
1
DE20
1
DE19
1
DE14
DE12
1
1
7358
DE11
DE17
DE10
1
1
1

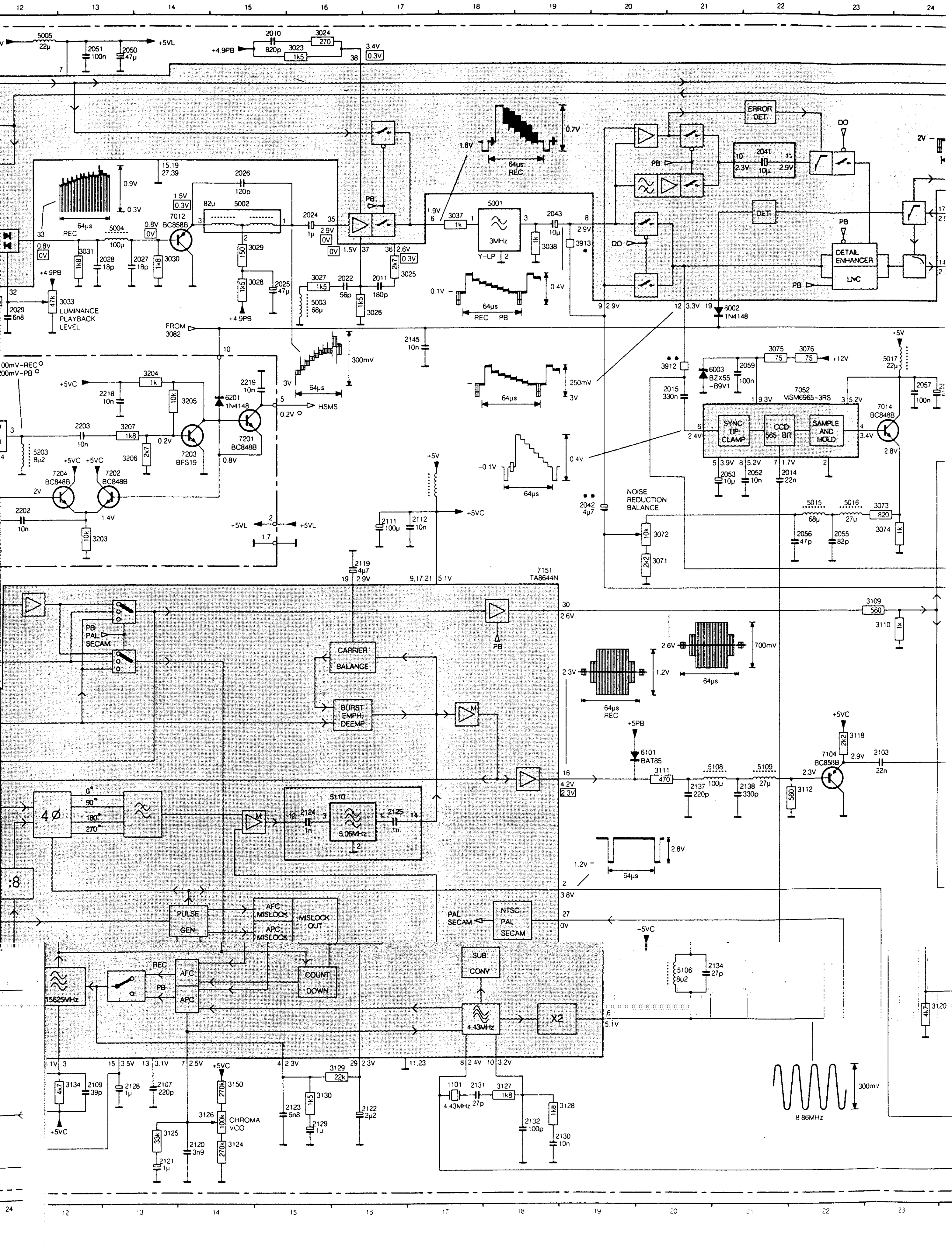
MDA 02776
T-08 031

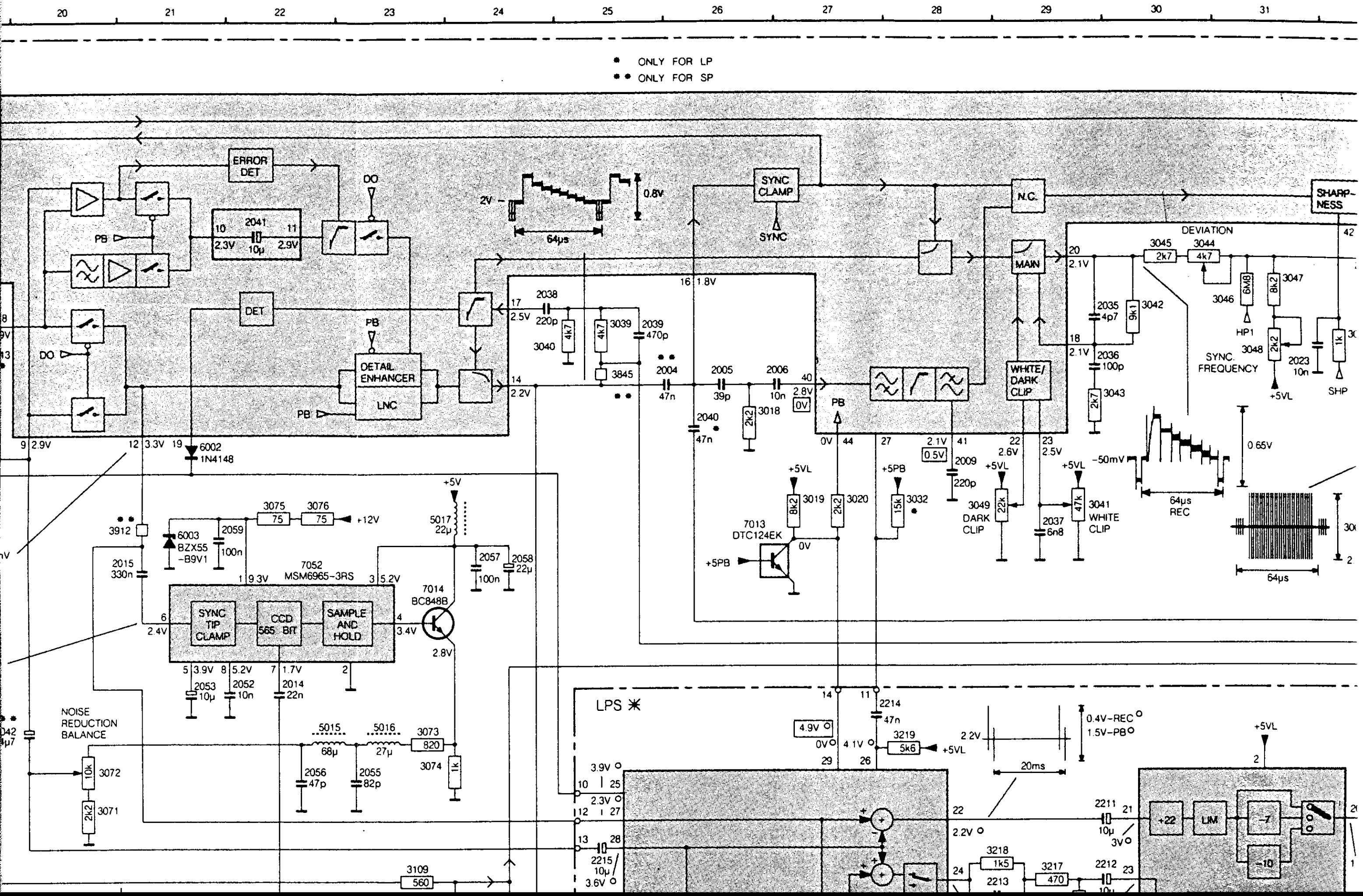
Family board unit JFBU/SE


V MEASURED IN PLAYBACK MODE
○ MEASURED IN LP
V MEASURED IN RECORD MODE
2045 4μ7
64μs REC
1V
2.4V
+4.9PB
2065 100n
680 3065
7008 BFS19
5011 27μ
2064 56p
3363 560
3064 560
+4.9PB
330 3060
2013 82p
1k 3059
5018 8μ2
7009 BF824
2063 560p
3062 560
5010 100μ
+5VL
3035 47k
E-E LEVEL
2046 6n8
1M 3036
2044 22μ
3081 1k
CSYNC
SYNC SEPARATOR
DO
DROP-OUT PULSE FORMER
DOUBLE LIMITER
+4.9PB
2048 47μ
2348 100n
4.9V
2047 22n
270k 3034
+5PB
1k 3057
7010 BFS19
2032 10n
3061 470
5012 15μ
2061 27p
3058 1k
2012 33p
2031 22n
2034 10n
2033 10n
2030 10n
350mV
3V
PB
JCO 6CO4
6IO30
JCO 7CO4
7IO30 VBS
HV4/2 10L6
FMPV
4VS22
HV4/2 11L6
3VS22
5008 8μ2
2068 47p
3067 330
2066 39p
1k 3068
470 3066
2067 10n
TO LPS PIN 10
7015 DTC124
470 3070
3069 470K
5009 15μ
LP
3082 100
FROM JFBU/DE IC7354 PIN36
LPS ✳
+5VC
10k 3202
2201 10n
6k8 3201
2204 10n
3211 390
5201 8μ2
(TO PAL/SECAM IDENTIFICATION) CHROMA
300mV-REC
700mV-PB
300mV-REC
600mV-PB
64μs
+5V
4k7 3009
7002 BC858B
1k 3008
5006 22μ
+5PB
+4.9PB
!PAV
6004 1N4148
FROM JFBU/DE 7308
1002 T315mA
+5A
+5V
5A FROM JFBU/DE 2DE18
+12V
FROM JFBU/DE IC7356 PIN 7
HSMS
FROM LPS PIN 5
TO JFBU/DE IC7354 PIN 3
2110 100p
2.5V
64μs PB
0.7V
2.3V
64μs REC
3107 1k
5102 4.43MHz
2108 39p
1k 3108
2105 1n
+5VC
6k8 3155
820 3137
7102 BFS19
7103 BC848B
2133 100n
2k2 3136
220 3138
1k5 3139
2102 10n
3104 270
5111 128μs
1k5 3105
2139 1n
+5PB
1k5 3106
3103 6k8
2117 100p
7101 BC548B
5105 150μ
2135 100n
HV4/2 12L6
2VS22
2113 3n9
3117 1k
5101 1.1MHz
3101 1k
3102 2k2
HV4/2 13L6
1VS22
CPV
2136 47μ
3141 47k
7106 BC848B
2115 220n
2116 220n
2114 47n 22n
7107 BC858B
7108 DTC124
FROM JFBU/DE IC7355 PIN 2
MSP
+5V
150 3147
64μs
4V
7109 BC848B
2106 6n8
3148 1k
CSYNC
8k2 3145
2101 820p
3006 4k7
3005 150
+5PB
2003 47μ
+4.9C
7003 BF824
7004 BC858B
3007 1k8
2k2 3004
3003 100
5007 15μ
2002 68p
6001 1N4148
TRIV
2001 22n
47k 3002
TO JFBU/DE IC7306 PIN15
JCO 9CO3
1DE15
CSYNC (TO 3012,3081 3148)
FROM JFBU/DE 3341,3354
FROM JFBU/DE IC7354 PIN 39
FFP (TO 3084)
HP1 (TO 16-IC7251)
+12V
470 3078
22 3077
HV4/2 7L6
7VS22
ENVC
3013 100k
7053-4D 4070BP
7007 BC558B
2074 100p
7053-4C 4070BP
3924
+5VL
13
7053-4D 4070BP
MASM/HSMS
3087 1k
FROM JFBU/DE C-7306
1k 3015
10k 3014
7006 BSV52
REV FROM JFBU/DE E-7307
3079 2k2
7001 BC328-40
2060 22n
HV4/2 8L6
6VS22
REV
HSC 8VS22 HV4/2 6L6
CSYNC
3012 4k7
+5VL
7053-4A 4070BP
HP1 (TO 3046)
HP1 9VS22 HV4/2 5L6
NTSC FROM JFBU/DE IC7355 PIN3
3149 100k
7110 BC848B
FROM JFBU/DE IC7354 PIN 37
HP1
3083 10k
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O

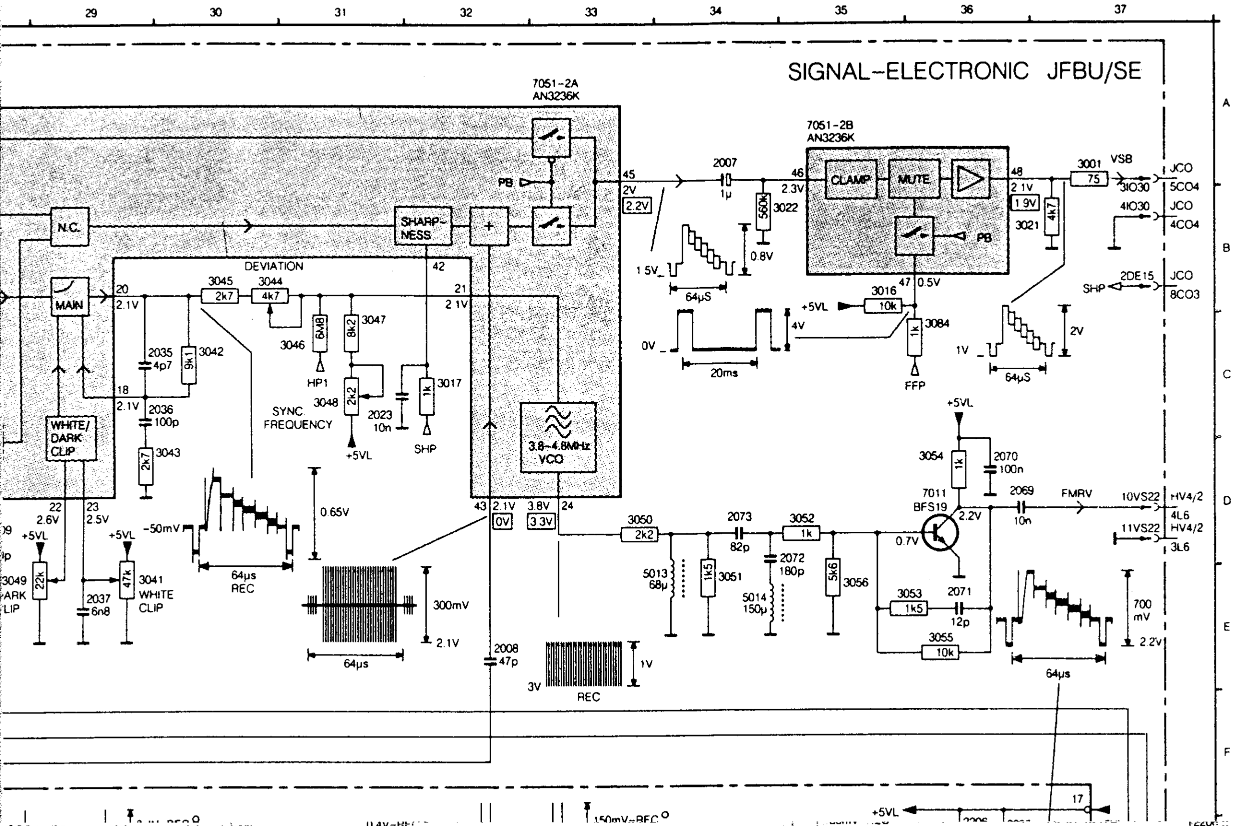

RED IN LP
+4.9PB
+5VL
E-E LEVEL
CSYNC
SYNC SEPA-RATOR
DO
DROP-OUT PULSE FORMER
DOUBLE LIMITER
LUMINANCE PLAYBACK LEVEL
FROM 3082
+5V
5005 22µ
+5VL
2051 100n
2050 47µ
2010 820p
3023 1k5
3024 270
7009 BF824
7010 BFS19
7012 BC858B
5012 15µ
5018 8µ2
5011 27µ
5010 100µ
5004 100µ
5002
REC
PB
64µs
350mV
3V
0.9V
0.3V
LPS ✳
(TO PAL/SECAM IDENTIFICATION) CHROMA
300mV-REC ○ 700mV-PB ○
300mV-REC 600mV-PB
100mV-REC ○ 200mV-PB ○
40mV
DL701
5202
7201 BC848B
7202 BC848B
7203 BFS19
7204 BC848B
6201 1N4148
HSMS
+5VC
5102 4.43MHz
5111 128µs
7102 BFS19
7103 BC848B
PB PAL SECAM
CARR BALA
BUR EMP DEE
4 Ø
0° 90° 180° 270°
:8
5.015625MHz
PULSE GEN.
AFC MISLOCK
APC MISLOCK
MISLOCK OUT
COUNT DOWN
AFC
APC
5110
5,06M
7106 BC848B
7107 BC858B
7108 DTC124
7109 BC848B
CSYNC
4V
TRIV
TO JFBU/DE IC7306 PIN15
HP1 (TO 16-IC7251)
7053-4C 4070BP
7053-4D 4070BP
7053-4A 4070BP
HP1 (TO 3046)
HSC 8VS22 HV4/2 6L6
HP1 9VS22 HV4/2 5L6
REV FROM JFBU/DE E-7307
7001 BC328-40
+12V
HV4/2 6VS22 8L6 REV
NTSC FROM JFBU/DE IC7355 PIN3
7110 BC848B
CHROMA VCO
+5PB
+5
3924
4 5 6 7 8 9 10 11 12 13 14 15 16

9


12
13
14
15
16
17
18
19
20
21
22
23
24
5005
22µ
2051
100n
2050
47µ
+5VL
+4.9PB
2010
820p
3024
270
3023
1k5
3.4V
0.3V
38
ERROR DET
DO
2V
0.7V
1.8V
64µs
REC
15,19
27,39
0.9V
0.3V
2026
120p
1.5V
0.3V
7012
BC858B
82µ
5002
2024
1µ
35
2.9V
0V
1.9V
6
3037
1k
5001
3MHz
Y-LP
2043
10µ
8
2.9V
3913
3038
PB
2041
10µ
2.3V
11
DET
DETAIL ENHANCER
LNC
33
REC
5004
100µ
0.8V
0V
3031
1k8
2028
18p
2027
18p
3030
3029
150
3028
1k5
2025
47µ
1.5V
37
36
2.6V
0.3V
2k7
3025
3027
1k5
2022
56p
2011
180p
3026
5003
68µ
+4.9PB
0.1V
0.4V
REC PB
9
12
3.3V
19
6002
1N4148
32
2029
6n8
3033
47k
LUMINANCE PLAYBACK LEVEL
FROM 3082
2145
10n
100mV-REC
200mV-PB
10
+5VC
3204
1k
2218
10n
3205
10k
6201
1N4148
2219
10n
5
HSMS
0.2V
3V
300mV
250mV
3V
3912
6003
BZX55 -B9V1
2059
100n
3075
75
3076
75
+12V
+5V
5017
22µ
2015
330n
9.3V
7052
MSM6965-3RS
3
5.2V
2057
100n
7014
BC848B
SYNC TIP CLAMP
CCD 565 BIT
SAMPLE AND HOLD
2.4V
3.4V
2.8V
3
5203
8µ2
2203
10n
3207
1k8
0.2V
7201
BC848B
7203
BFS19
0.8V
3206
2k7
+5VC
7204
BC848B
7202
BC848B
2V
1.4V
2202
10n
3203
10k
-0.1V
0.4V
5
3.9V
8
5.2V
7
1.7V
2
2053
10µ
2052
10n
2014
22n
NOISE REDUCTION BALANCE
2042
4µ7
5015
68µ
5016
27µ
3073
820
3074
1k
2056
47p
2055
82p
3072
10k
3071
2k2
+5VL
2
+5VL
1,7
2111
100µ
2112
10n
+5VC
2119
4µ7
19
2.9V
9,17,21
5.1V
7151
TA8644N
30
2.6V
3109
560
3110
1k
PB PAL SECAM
PB
CARRIER BALANCE
BURST EMPH. DEEMP
M
2.6V
700mV
2.3V
1.2V
+5PB
6101
BAT85
16
4.2V
2.3V
3111
470
5108
100µ
5109
27µ
2137
220p
2138
330p
3112
560
+5VC
3118
2k2
7104
BC858B
2.9V
2103
22n
2.3V
4Ø
0°
90°
180°
270°
5110
2124
1n
5.06MHz
2125
1n
12
14
1.2V
2.8V
:8
2
3.8V
PULSE GEN.
AFC MISLOCK
APC MISLOCK
MISLOCK OUT
PAL SECAM
NTSC PAL SECAM
27
0V
+5VC
SUB CONV
5106
8µ2
2134
27p
REC
PB
AFC
APC
COUNT DOWN
15625MHz
4.43MHz
X2
6
5.1V
3120
4k7
3
15
3.5V
13
3.1V
7
2.5V
+5VC
4
2.3V
29
2.3V
11,23
8
2.4V
10
3.2V
3134
4k7
2109
39p
2128
1µ
2107
220p
3150
270k
3126
100k
CHROMA VCO
3124
270k
3125
33k
2120
3n9
2121
1µ
3129
22k
3130
1k5
2129
1µ
2123
6n8
2122
2µ2
1101
4.43MHz
2131
27p
3127
1k8
3128
1k8
2132
100p
2130
10n
300mV
8.86MHz
+5VC

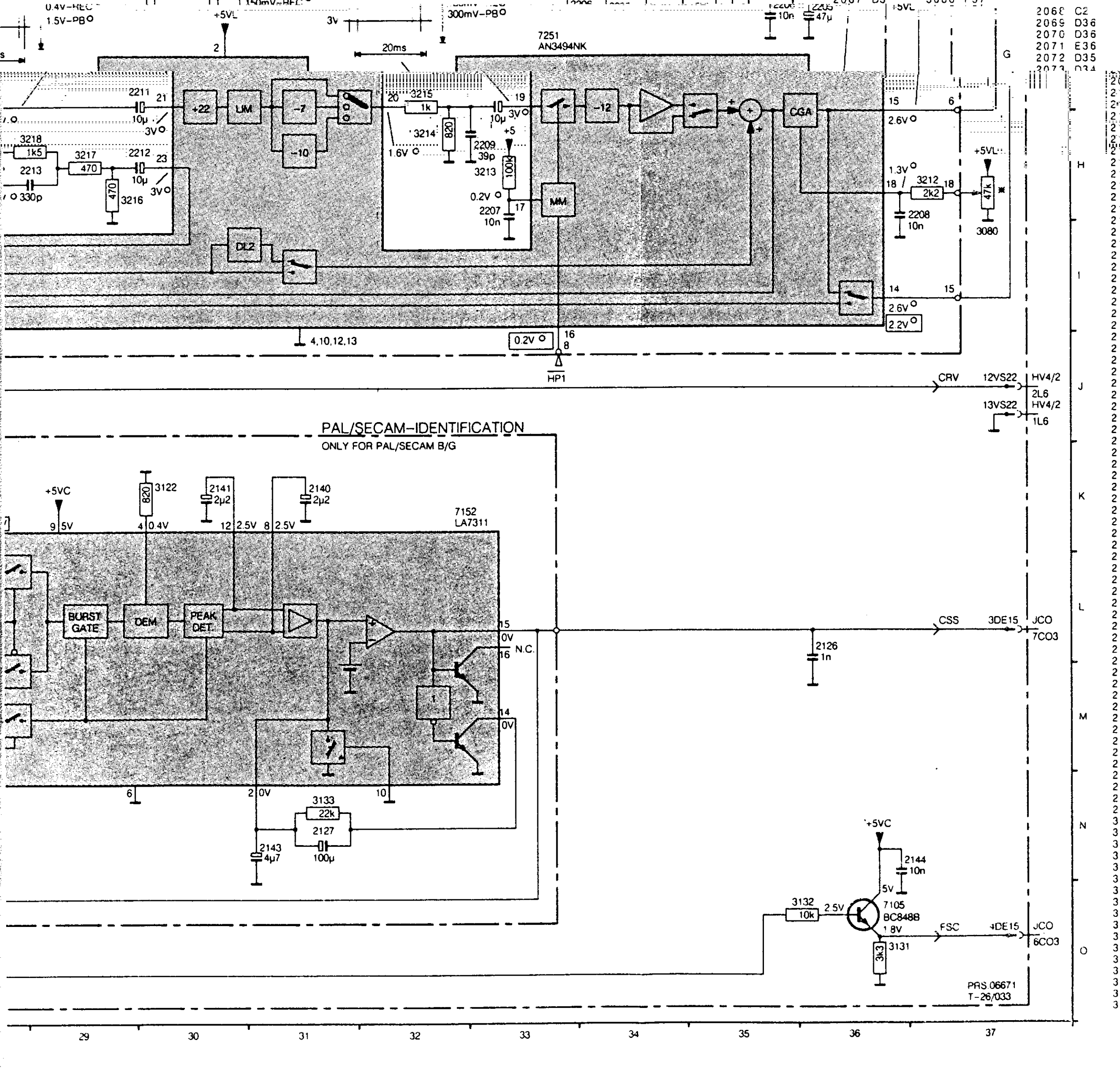


20
21
22
23
24
25
26
27
28
29
30
31
• ONLY FOR LP
•• ONLY FOR SP
ERROR DET
DO
2041
10µ
10
11
2.3V
2.9V
PB
DET
DETAIL ENHANCER
LNC
DO
2V
0.8V
64µs
SYNC CLAMP
SYNC
N.C.
SHARP-NESS
DEVIATION
MAIN
WHITE/ DARK CLIP
2038
220p
2039
470p
3039
3040
4k7
3845
2004
47n
2005
39p
2006
10n
2040
47n
3018
2k2
2.8V
0V
3045
2k7
3044
4k7
3046
6M8
3047
8k2
3042
9k1
2035
4p7
2036
100p
3043
2k7
HP1
SYNC. FREQUENCY
3048
2k2
2023
10n
+5VL
SHP
2009
220p
0.5V
3049
22k
DARK CLIP
3041
47k
WHITE CLIP
2037
6n8
-50mV
0.65V
64µs
REC
64µs
PB
3019
8k2
3020
2k2
3032
15k
+5PB
7013
DTC124EK
+5PB
3912
2015
330n
6002
1N4148
6003
BZX55 -B9V1
2059
100n
3075
75
3076
75
+12V
7052
MSM6965-3RS
SYNC TIP CLAMP
CCD 565 BIT
SAMPLE AND HOLD
+5V
5017
22µ
2057
100n
2058
22µ
7014
BC848B
2.4V
3.4V
2.8V
2053
10µ
2052
10n
2014
22n
NOISE REDUCTION BALANCE
3072
10k
3071
2k2
5015
68µ
5016
27µ
3073
820
3074
1k
2056
47p
2055
82p
3109
560
LPS ✳
4.9V
0V
2214
47n
3219
5k6
+5VL
4.1V
2.2V
20ms
0.4V-REC
1.5V-PB
3.9V
2.3V
2215
10µ
3.6V
2211
10µ
3V
3218
1k5
2213
3217
470
2212
10µ
+22
LIM
÷7
÷10


SIGNAL-ELECTRONIC JFBU/SE
7051-2A AN3236K
7051-2B AN3236K
N.C.
MAIN
SHARP-NESS
DEVIATION
WHITE/DARK CLIP
SYNC. FREQUENCY
3.8-4.8MHz VCO
CLAMP
MUTE
PB
VSB
JCO 5CO4
JCO 4CO4
JCO 8CO3
SHP
FFP
HP1
+5VL
7011 BFS19
FMRV
10VS22 HV4/2 4L6
11VS22 HV4/2 3L6
64μs REC
20ms
300mV
700 mV
WHITE CLIP
DARK CLIP

1002	G1	3020	E27	5018	C6
1101	N17	3021	B36	5101	J2
2001	M5	3022	B34	5102	H6
2002	M3	3023	A16	5103	H11
2003	L4	3024	A16	5105	J4
2004	C26	3025	D17	5106	M20
2005	C26	3026	D17	5107	N12
2006	C27	3027	D16	5108	J21
2007	A34	3028	D15	5109	J22
2008	E32	3029	C15	5110	J16
2009	D28	3030	C14	5201	F11
2010	A15	3031	C13	5203	F12
2011	D17	3032	E28	6001	M4
2012	D7	3033	D13	6002	D21
2013	B5	3034	B9	6003	E21
2014	F22	3035	B6	6004	G1
2015	E20	3036	B7	6101	J20
2022	D16	3037	C18	6201	E15
2023	C31	3038	C19	7001	N11
2024	C16	3039	C25	7002	F2
2025	D15	3040	C24	7003	L2
2026	B15	3041	E29	7004	L3
2027	C14	3042	C30	7006	O3
2028	C13	3043	D30	7007	N4
2029	D12	3044	B30	7008	C4
2030	D11	3045	B30	7009	C6
2031	D9	3046	C31	7010	C8
2032	C9	3047	C31	7011	D36
2033	D11	3048	C31	7012	C14
2034	D10	3049	E28	7013	E26
2035	C29	3050	D33	7014	E23
2036	C29	3051	E34	7015	D2
2037	E29	3052	D35	7051	A33
2038	C24	3053	E36	7051	A35
2039	C25	3054	D36	7052	E22
2040	D26	3055	E36	7053	N3
2041	B22	3056	E35	7053	N5
2042	G19	3057	C8	7053	N7
2043	C19	3058	C7	7053	O6
2044	B8	3059	B6	7101	J3
2045	A2	3060	B5	7102	H7
2046	B7	3061	D8	7103	G8
2047	B9	3062	D5	7104	J23
2048	A9	3064	C4	7105	O36
2050	A13	3065	B4	7106	J7
2051	A13	3066	C3	7107	K8
2052	F22	3067	C2	7108	K6
2053	F21	3068	C3	7109	L10
2055	G23	3069	E3	7110	O11
2056	G22	3070	D3	7151	H19
2057	E24	3071	G20	7152	K32
2058	E24	3072	G20	7201	F15
2059	E21	3073	G23	7202	F13
2060	N11	3074	G23	7203	F14
2061	C6	3075	E22	7204	F13
2063	D6	3076	E22	7251	G34
2064	C4	3077	N11		
2065	B4	3078	N10		
2066	C3	3079	N10		
2067	D3	3080	I37		

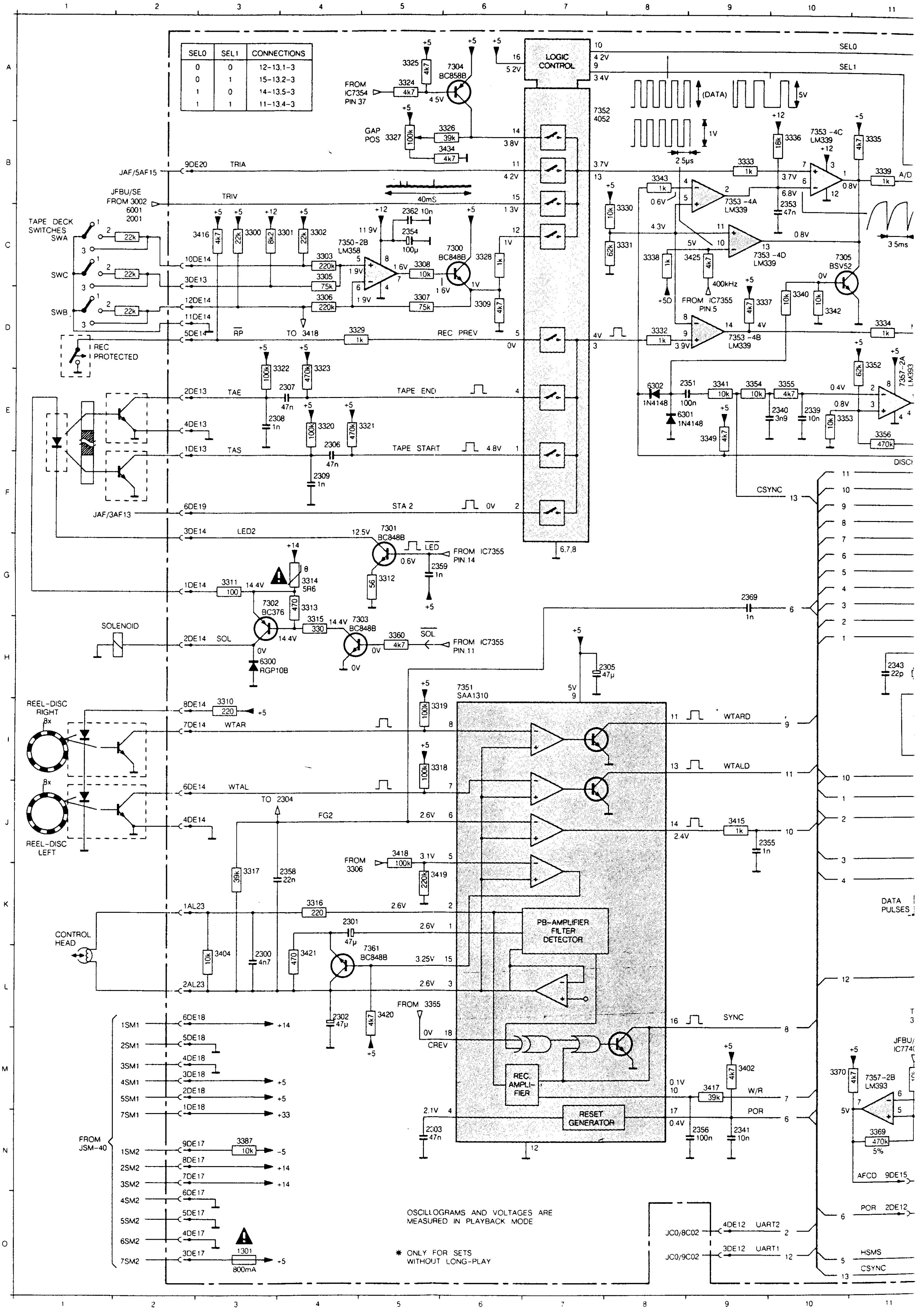
2068	C2
2069	D36
2070	D36
2071	E36
2072	D35
2073	D34


7251 AN3494NK
+22
LIM
-7
-10
-12
DL2
MM
CGA
HP1
CRV
12VS22 HV4/2 2L6
13VS22 HV4/2 1L6
PAL/SECAM-IDENTIFICATION
ONLY FOR PAL/SECAM B/G
7152 LA7311
BURST GATE
DEM
PEAK DET.
N.C.
+5VC
CSS
3DE15 JCO 7CO3
7105 BC848B
FSC
4DE15 JCO 6CO3
3080
PRS 06671 T-26/033
150mV-REC
300mV-PB
0.4V-REC
1.5V-PB
20ms

308·	B9
3082	E1
3083	O1
3084	C36
3087	N1
310·	J3

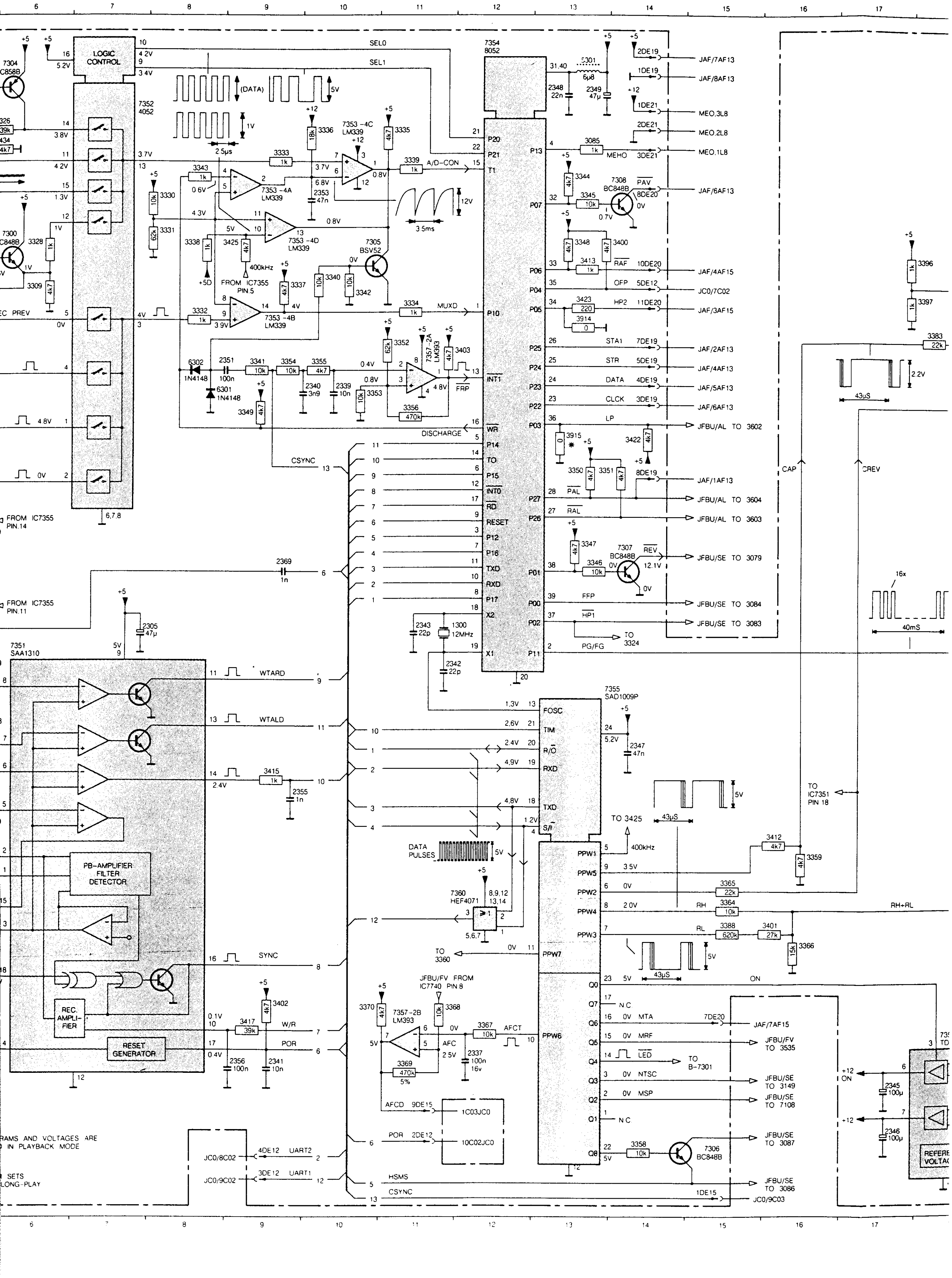
74	N4	3102	J3
01	L11	3103	I3
02	H9	3104	H10
03	J23	3105	H11
04	H11	3106	I4
05	I7	3107	H6
06	L11	3108	I6
07	N13	3109	H23
08	I6	3110	H23
09	N12	3111	J20
10	H4	3112	J22
11	G17	3115	L27
12	G17	3116	K27
13	J1	3117	J1
14	K8	3118	J23
15	J7	3119	L27
16	K8	3120	M23
17	J4	3121	O26
118	L26	3122	K30
119	G16	3123	O11
20	O14	3124	O14
21	O13	3125	O13
122	O16	3126	O14
123	O15	3127	N18
124	K16	3128	O19
125	K17	3129	N16
126	L36	3130	N15
127	N31	3131	O36
128	N13	3132	O36
129	O15	3133	N31
130	O18	3134	N12
131	N17	3136	H7
132	O18	3137	G7
133	G8	3138	H8
134	M20	3139	H8
135	J4	3141	K7
136	K6	3143	O25
137	J21	3145	L10
138	J21	3147	K10
139	I10	3148	L9
140	K31	3149	O10
141	K30	3150	N14
142	L26	3155	G7
143	N31	3201	F10
144	N36	3202	E10
145	D17	3203	G13
201	F10	3204	E14
202	G12	3205	E14
203	F13	3206	F13
204	F10	3207	F13
205	G36	3211	F11
206	G36	3212	H37
207	H33	3213	H33
208	H37	3214	H32
209	H33	3215	G32
211	G30	3216	H29
212	H30	3217	H29
213	H29	3218	H29
214	F27	3219	G28
215	H25	3363	C4
216	I25	3845	C25
218	E13	3912	E21
219	E15	3913	C19
348	A9	3924	N5
001	A37	5001	C18
002	M5	5002	C15
003	M3	5003	D16
004	M2	5004	C13
005	L3	5005	A12
006	L3	5006	G3
007	L1	5007	M4
008	F2	5008	C2
009	F2	5009	E3
012	O1	5010	D6
013	N1	5011	B5
014	N4	5012	C6
015	N3	5013	E34
016	B35	5014	E34
017	C32	5015	G22
018	D26	5016	G23
019	E27	5017	E24

Family board unit JFBU/DE



SEL0	SEL1	CONNECTIONS
0	0	12-13,1-3
0	1	15-13,2-3
1	0	14-13,5-3
1	1	11-13,4-3

LOGIC CONTROL
7352 4052
SEL0
SEL1
(DATA)
5V
1V
2.5μs
FROM IC7354 PIN 37
7304 BC858B
GAP POS 3327
JAF/5AF15
9DE20 TRIA
JFBU/SE FROM 3002 6001 2001
TRIV
40mS
TAPE DECK SWITCHES SWA
SWC
SWB
REC PROTECTED
7350-2B LM358
7300 BC848B
10DE14
3DE13
12DE14
11DE14
5DE14
RP
TO 3418
REC PREV
2DE13 TAE
TAPE END
4DE13
1DE13 TAS
TAPE START
6DE19
STA 2
JAF/3AF13
3DE14 LED2
7301 BC848B
LED
FROM IC7355 PIN 14
1DE14
7302 BC376
7303 BC848B
SOLENOID
2DE14 SOL
SOL
FROM IC7355 PIN 11
6300 RGP10B
REEL-DISC RIGHT
8x
8DE14
7DE14 WTAR
6DE14 WTAL
4DE14
REEL-DISC LEFT
TO 2304
FG2
7351 SAA1310
WTARD
WTALD
SYNC
W/R
POR
FROM 3306
CONTROL HEAD
1AL23
2AL23
7361 BC848B
PB-AMPLIFIER FILTER DETECTOR
REC. AMPLI-FIER
RESET GENERATOR
FROM 3365
CREV
FROM JSM-40
1SM1
2SM1
3SM1
4SM1
5SM1
7SM1
1SM2
2SM2
3SM2
4SM2
5SM2
6SM2
7SM2
6DE18
5DE18
4DE18
3DE18
2DE18
1DE18
9DE17
8DE17
7DE17
6DE17
5DE17
4DE17
3DE17
1301 800mA
7353-4C LM339
7353-4A LM339
7353-4D LM339
7353-4B LM339
7305 BSV52
400kHz
FROM IC7355 PIN 5
A/D
3.5ms
6302 1N4148
6301 1N4148
7357-2A LM393
CSYNC
DISC
DATA PULSES
JFBU/ IC774
7357-2B LM393
AFCD 9DE15
POR 2DE12
JC0/8C02
4DE12 UART2
JC0/9C02
3DE12 UART1
HSMS
CSYNC
OSCILLOGRAMS AND VOLTAGES ARE MEASURED IN PLAYBACK MODE
* ONLY FOR SETS WITHOUT LONG-PLAY


6
7
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12
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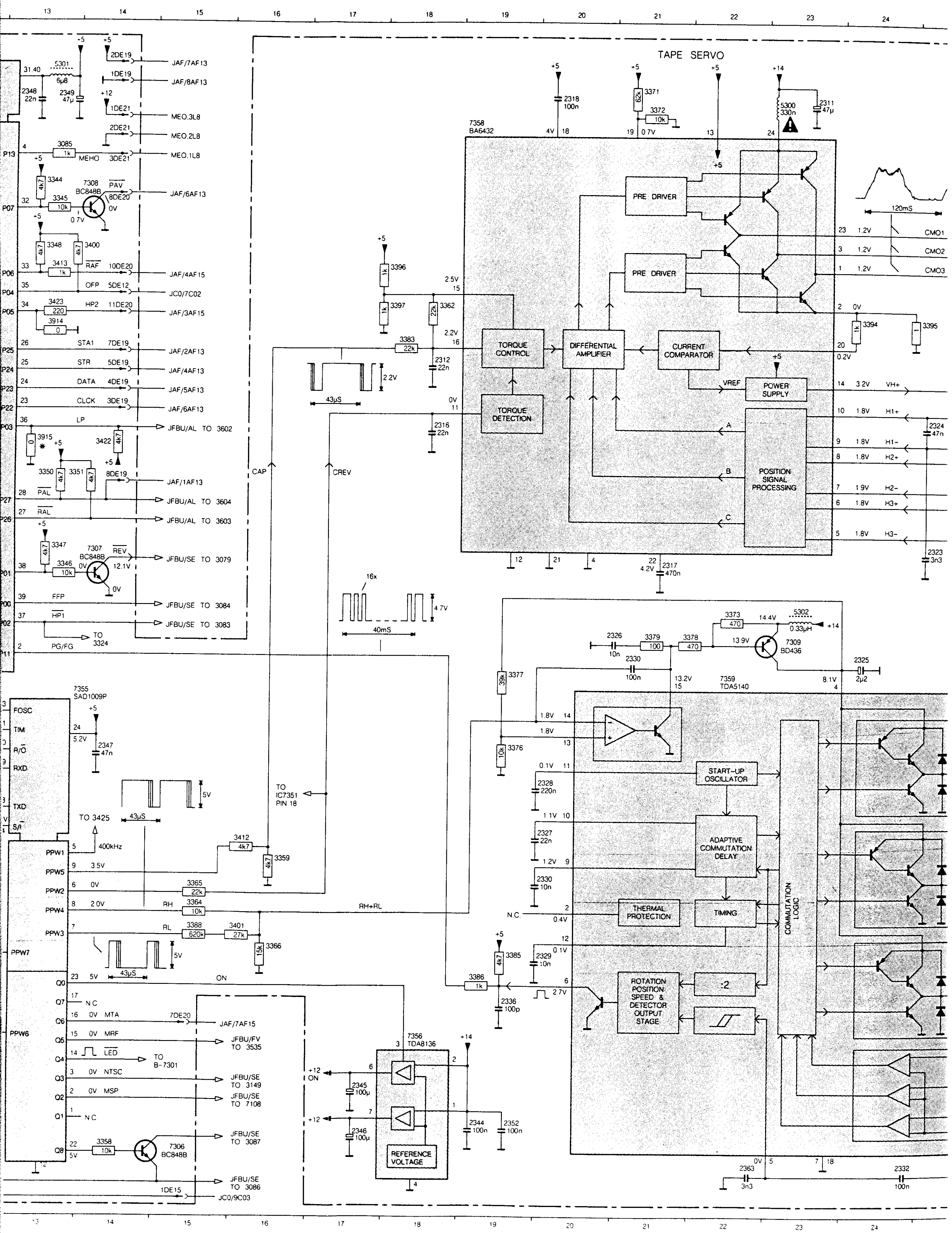
17
LOGIC CONTROL
7352 4052
7304 BC858B
7300 BC848B
7354 8052
7355 SAD1009P
7351 SAA1310
7353 -4A LM339
7353 -4B LM339
7353 -4C LM339
7353 -4D LM339
7357 -2A LM393
7357 -2B LM393
7305 BSV52
7308 BC848B
7307 BC848B
7306 BC848B
7360 HEF4071
SEL0
SEL1
(DATA)
5V
1V
2.5µs
12V
3.5ms
A/D-CON
MUXD
FRP
DISCHARGE
CSYNC
400kHz
FROM IC7355 PIN.5
FROM IC7355 PIN.14
FROM IC7355 PIN.11
1300 12MHz
5301 6µ8
2348 22n
2349 47µ
2DE19
1DE19
1DE21
2DE21
3DE21
JAF/7AF13
JAF/8AF13
MEO.3L8
MEO.2L8
MEO.1L8
MEHO
PAV
8DE20
JAF/6AF13
RAF
10DE20
JAF/4AF15
OFP
5DE12
JC0/7C02
HP2
11DE20
JAF/3AF15
STA1
7DE19
JAF/2AF13
STR
5DE19
JAF/4AF13
DATA
4DE19
JAF/5AF13
CLCK
3DE19
JAF/6AF13
LP
JFBU/AL TO 3602
8DE19
JAF/1AF13
PAL
JFBU/AL TO 3604
RAL
JFBU/AL TO 3603
REV
JFBU/SE TO 3079
FFP
JFBU/SE TO 3084
HP1
JFBU/SE TO 3083
TO 3324
PG/FG
P20
P21
T1
P13
P07
P06
P04
P05
P25
P24
P23
P22
P03
P10
INT1
WR
P14
T0
P15
INT0
RD
RESET
P12
P16
TXD
RXD
P17
X2
X1
P27
P26
P01
P00
P02
P11
FOSC
TIM
R/O
RXD
TXD
S/I
PPW1
PPW5
PPW2
PPW4
PPW3
PPW7
PPW6
Q0
Q7
Q6
Q5
Q4
Q3
Q2
Q1
Q8
TO 3425
DATA PULSES
TO 3360
43µS
CAP
CREV
TO IC7351 PIN 18
RH
RL
RH+RL
ON
N C
MTA
7DE20
JAF/7AF15
MRF
JFBU/FV TO 3535
LED
TO B-7301
NTSC
JFBU/SE TO 3149
MSP
JFBU/SE TO 7108
JFBU/SE TO 3087
JFBU/SE TO 3086
HSMS
1DE15
JC0/9C03
JFBU/FV FROM IC7740 PIN 8
AFC
AFCT
AFCD
9DE15
1C03JC0
POR
2DE12
10C02JC0
JC0/8C02
4DE12
UART2
JC0/9C02
3DE12
UART1
WTARD
WTALD
SYNC
W/R
PB-AMPLIFIER FILTER DETECTOR
REC. AMPLI- FIER
RESET GENERATOR
2.2V
16x
40mS
REFERE VOLTAG
+12 ON
2345 100µ
2346 100µ
RAMS AND VOLTAGES ARE D IN PLAYBACK MODE
SETS LONG-PLAY
EC PREV
6302 1N4148
6301 1N4148
3336 18k
3335 4k7
3333 1k
3339 1k
3343 1k
3330 10k
3331 62k
3338 1k
3425 4k7
3337 4k7
3340 10k
3342 10k
3332 1k
3334 1k
3352 62k
3403 4k7
2351 100n
3341 10k
3354 10k
3355 4k7
2340 3n9
2339 10n
3353 10k
3349 4k7
3356 470k
2353 47n
3085 1k
3344 4k7
3345 10k
3348 4k7
3400 4k7
3413 1k
3423 220
3914 0
3915 0
3422 4k7
3350 4k7
3351 4k7
3347 4k7
3346 10k
2343 22p
2342 22p
2369 1n
2305 47µ
3415 1k
2355 1n
3402 4k7
3417 39k
2356 100n
2341 10n
2347 47n
3370 4k7
3368 10k
3367 10k
3369 470k 5%
2337 100n 16v
3358 10k
3412 4k7
3359 4k7
3365 22k
3364 10k
3388 620k
3401 27k
3366 15k
3396 1k
3397 1k
3383 22k
3328 1k
3309 4k7
3326 39k
434 4k7


13
14
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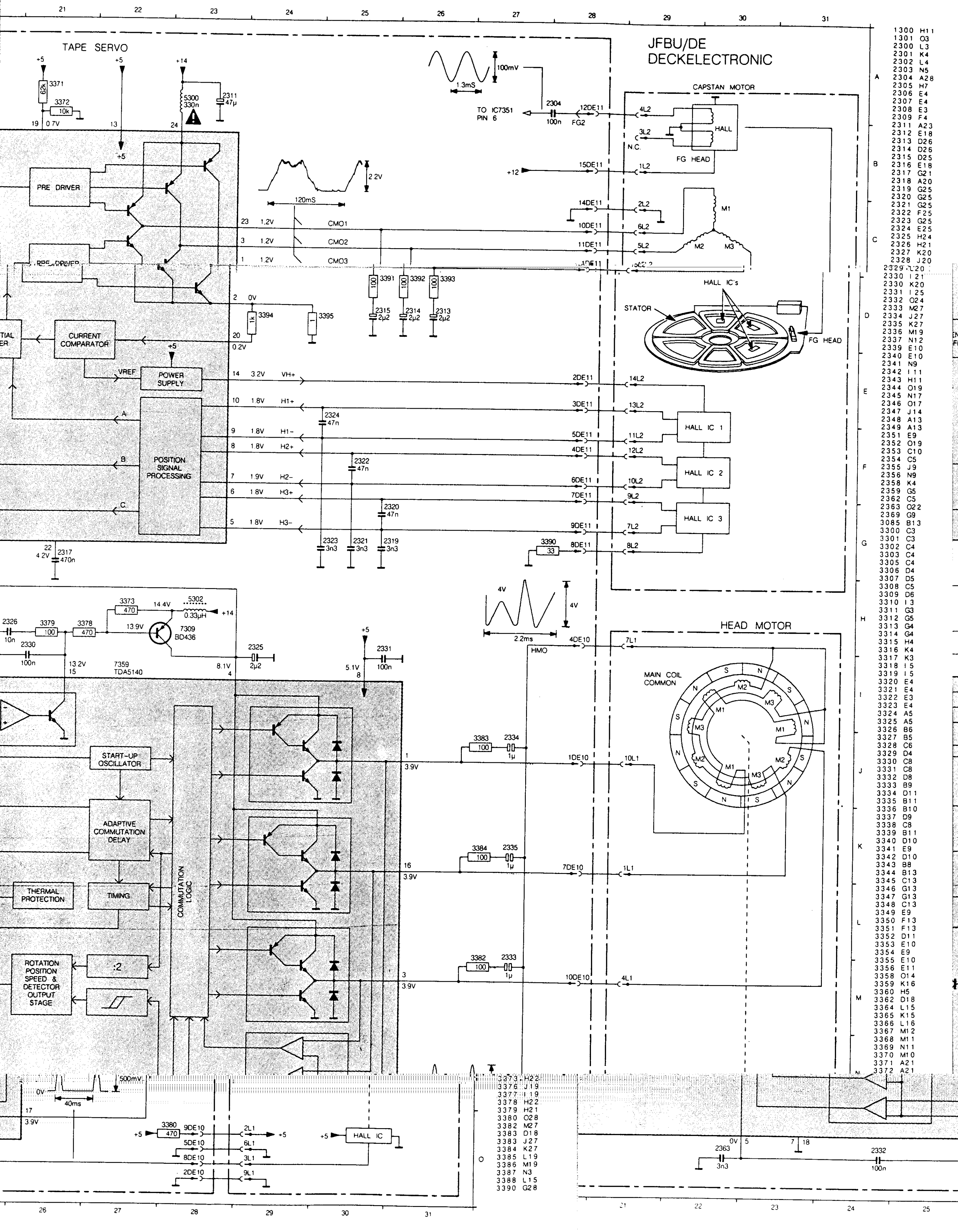
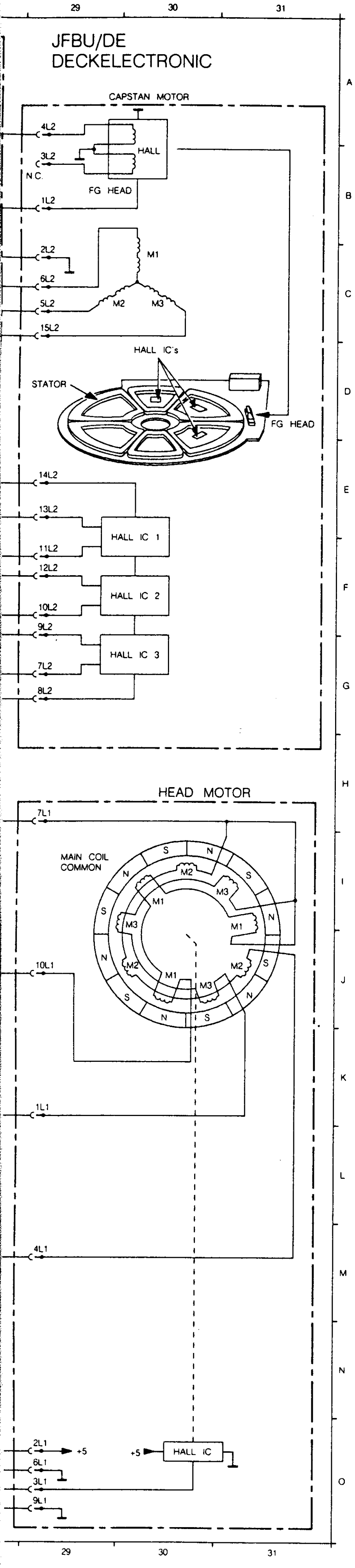
24
TAPE SERVO
7358
BA6432
TORQUE CONTROL
TORQUE DETECTION
DIFFERENTIAL AMPLIFIER
CURRENT COMPARATOR
PRE DRIVER
PRE DRIVER
POWER SUPPLY
VREF
POSITION SIGNAL PROCESSING
A
B
C
120mS
CMO1
CMO2
CMO3
VH+
H1+
H1-
H2+
H2-
H3+
H3-
2318 100n
3371 62k
3372 10k
5300 330n
2311 47µ
3396 1k
3397 1k
3362 22k
3383 22k
2312 22n
2316 22n
3394 1k
3395
2324 47n
2323 3n3
2317 470n
2.5V
2.2V
43µS
2.2V
CAP
CREV
16x
4.7V
40mS
7359
TDA5140
START-UP OSCILLATOR
ADAPTIVE COMMUTATION DELAY
THERMAL PROTECTION
TIMING
COMMUTATION LOGIC
ROTATION POSITION SPEED & DETECTOR OUTPUT STAGE
:2
N.C.
3373 470
5302 0.33µH
7309 BD436
2326 10n
3379 100
3378 470
2330 100n
2325 2µ2
3377 39k
3376 10k
2328 220n
2327 22n
2330 10n
2329 10n
3385 4k7
3386 1k
2336 100p
2363 3n3
2332 100n
7356
TDA8136
REFERENCE VOLTAGE
2345 100µ
2346 100µ
2344 100n
2352 100n
+12 ON
+12
7355
SAD1009P
FOSC
TIM
R/Ō
RXD
TXD
S/Ī
PPW1
PPW5
PPW2
PPW4
PPW3
PPW7
PPW6
Q0
Q7
Q6
Q5
Q4
Q3
Q2
Q1
Q8
400kHz
TO 3425
5V
43µS
2347 47n
3412 4k7
3359 4k7
3365 22k
3364 10k
3388 620k
3401 27k
3366 15k
RH
RL
RH+RL
ON
TO IC7351 PIN 18
N C
MTA
MRF
LED
NTSC
MSP
7DE20
JAF/7AF15
JFBU/FV TO 3535
TO B-7301
JFBU/SE TO 3149
JFBU/SE TO 7108
JFBU/SE TO 3087
JFBU/SE TO 3086
1DE15
JC0/9C03
3358 10k
7306 BC848B
5301 6µ8
2348 22n
2349 47µ
31.40
2DE19
1DE19
1DE21
2DE21
3DE21
JAF/7AF13
JAF/8AF13
MEO.3L8
MEO.2L8
MEO.1L8
3085 1k
MEHO
P13
3344 4k7
3345 10k
7308 BC848B
PAV
8DE20
JAF/6AF13
P07
3348 4k7
3400 4k7
3413 1k
RAF
10DE20
JAF/4AF15
P06
OFP
5DE12
JC0/7C02
P04
3423 220
HP2
11DE20
JAF/3AF15
3914 0
P05
STA1
7DE19
JAF/2AF13
P25
STR
5DE19
JAF/4AF13
P24
DATA
4DE19
JAF/5AF13
P23
CLCK
3DE19
JAF/6AF13
P22
LP
JFBU/AL TO 3602
P03
3915 0
3422 4k7
3350 4k7
3351 4k7
8DE19
JAF/1AF13
PAL
JFBU/AL TO 3604
P27
RAL
JFBU/AL TO 3603
P26
3347 4k7
7307 BC848B
REV
3346 10k
12.1V
JFBU/SE TO 3079
P01
FFP
JFBU/SE TO 3084
P00
HP1
JFBU/SE TO 3083
P02
TO 3324
PG/FG
P11


TAPE SERVO
JFBU/DE
DECKELECTRONIC
CAPSTAN MOTOR
HALL
FG HEAD
N.C.
M1
M2
M3
HALL IC's
STATOR
FG HEAD
HALL IC 1
HALL IC 2
HALL IC 3
HEAD MOTOR
MAIN COIL COMMON
PRE DRIVER
PRE DRIVER
CURRENT COMPARATOR
POWER SUPPLY
VREF
POSITION SIGNAL PROCESSING
START-UP OSCILLATOR
ADAPTIVE COMMUTATION DELAY
THERMAL PROTECTION
TIMING
COMMUTATION LOGIC
ROTATION POSITION SPEED & DETECTOR OUTPUT STAGE
:2
HALL IC
TO IC7351 PIN 6
FG2
100mV
1.3mS
2.2V
120mS
4V
2.2ms
HMO
500mV
40ms
CMO1
CMO2
CMO3
VH+
H1+
H1−
H2+
H2−
H3+
H3−
7309 BD436
7359 TDA5140
5300 330n
5302 0.33µH
3371 62k
3372 10k
2311 47µ
2304 100n
3391 100
3392 100
3393 100
3394 1k
3395
2315 2µ2
2314 2µ2
2313 2µ2
2324 47n
2322 47n
2320 47n
2323 3n3
2321 3n3
2319 3n3
2317 470n
3390 33
3373 470
3379 100
3378 470
2326 10n
2330 100n
2325 2µ2
2331 100n
3383 100
2334 1µ
3384 100
2335 1µ
3382 100
2333 1µ
3380 470
2363 3n3
2332 100n
12DE11
15DE11
14DE11
10DE11
11DE11
2DE11
3DE11
5DE11
4DE11
6DE11
7DE11
9DE11
8DE11
4L2
3L2
1L2
2L2
6L2
5L2
14L2
13L2
11L2
12L2
10L2
9L2
7L2
8L2
4DE10
1DE10
7DE10
10DE10
7L1
10L1
1L1
4L1
9DE10
5DE10
8DE10
2DE10
2L1
6L1
3L1
9L1
+5
+12
+14
0.7V
1.2V
0V
0.2V
3.2V
1.8V
1.9V
4.2V
14.4V
13.9V
13.2V
8.1V
5.1V
3.9V
N
S
A
B
C
D
E
F
G
H
I
J
K
L
M
O
21
22
23
24
25
26
27
28
29
30
31

1300	H11
1301	O3
2300	L3
2301	K4
2302	L4
2303	N5
2304	A28
2305	H7
2306	E4
2307	E4
2308	E3
2309	F4
2311	A23
2312	E18
2313	D26
2314	D26
2315	D25
2316	E18
2317	G21
2318	A20
2319	G25
2320	G25
2321	G25
2322	F25
2323	G25
2324	E25
2325	H24
2326	H21
2327	K20
2328	J20
2329	L20
2330	I21
2330	K20
2331	I25
2332	O24
2333	M27
2334	J27
2335	K27
2336	M19
2337	N12
2339	E10
2340	E10
2341	N9
2342	I11
2343	H11
2344	O19
2345	N17
2346	O17
2347	J14
2348	A13
2349	A13
2351	E9
2352	O19
2353	C10
2354	C5
2355	J9
2356	N9
2358	K4
2359	G5
2362	C5
2363	O22
2369	G9
3085	B13
3300	C3
3301	C3
3302	C4
3303	C4
3305	C4
3306	D4
3307	D5
3308	C5
3309	D6
3310	I3
3311	G3
3312	G5
3313	G4
3314	G4
3315	H4
3316	K4
3317	K3
3318	I5
3319	I5
3320	E4
3321	E4
3322	E3
3323	E4
3324	A5
3325	A5
3326	B6
3327	B5
3328	C6
3329	D4
3330	C8
3331	C8
3332	D8
3333	B9
3334	D11
3335	B11
3336	B10
3337	D9
3338	C8
3339	B11
3340	D10
3341	E9
3342	D10
3343	B8
3344	B13
3345	C13
3346	G13
3347	G13
3348	C13
3349	E9
3350	F13
3351	F13
3352	D11
3353	E10
3354	E9
3355	E10
3356	E11
3358	O14
3359	K16
3360	H5
3362	D18
3364	L15
3365	K15
3366	L16
3367	M12
3368	M11
3369	N11
3370	M10
3371	A21
3372	A21
3373	H22
3376	J19
3377	I19
3378	H22
3379	H21
3380	O28
3382	M27
3383	D18
3383	J27
3384	K27
3385	L19
3386	M19
3387	N3
3388	L15
3390	G28


29
30
31
JFBU/DE
DECKELECTRONIC
CAPSTAN MOTOR
4L2
3L2
N.C.
HALL
FG HEAD
1L2
2L2
M1
6L2
M2
M3
5L2
15L2
HALL IC's
STATOR
FG HEAD
14L2
13L2
HALL IC 1
11L2
12L2
HALL IC 2
10L2
9L2
HALL IC 3
7L2
8L2
HEAD MOTOR
7L1
MAIN COIL
COMMON
S
N
M2
M3
M1
M3
M1
M2
M1
M3
M2
10L1
1L1
4L1
2L1
+5
6L1
3L1
9L1
+5
HALL IC
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

1300	H11
1301	O3
2300	L3
2301	K4
2302	L4
2303	N5
2304	A28
2305	H7
2306	E4
2307	E4
2308	E3
2309	F4
2311	A23
2312	E18
2313	D26
2314	D26
2315	D25
2316	E18
2317	G21
2318	A20
2319	G25
2320	G25
2321	G25
2322	F25
2323	G25
2324	E25
2325	H24
2326	H21
2327	K20
2328	J20
2329	L20
2330	I21
2330	K20
2331	I25
2332	O24
2333	M27
2334	J27
2335	K27
2336	M19
2337	N12
2339	E10
2340	E10
2341	N9
2342	I11
2343	H11
2344	O19
2345	N17
2346	O17
2347	J14
2348	A13
2349	A13
2351	E9
2352	O19
2353	C10
2354	C5
2355	J9
2356	N9
2358	K4
2359	G5
2362	C5
2363	O22
2369	G9
3085	B13
3300	C3
3301	C3
3302	C4
3303	C4
3305	C4
3306	D4
3307	D5
3308	C5
3309	D6
3310	I3
3311	G3
3312	G5
3313	G4
3314	G4
3315	H4
3316	K4
3317	K3
3318	I5
3319	I5
3320	E4
3321	E4
3322	E3
3323	E4
3324	A5
3325	A5
3326	B6
3327	B5
3328	C6
3329	D4
3330	C8
3331	C8
3332	D8
3333	B9
3334	D11
3335	B11
3336	B10
3337	D9
3338	C8
3339	B11
3340	D10
3341	E9
3342	D10
3343	B8
3344	B13
3345	C13
3346	G13
3347	G13
3348	C13
3349	E9
3350	F13
3351	F13
3352	D11
3353	E10
3354	E9
3355	E10
3356	E11
3358	O14
3359	K16
3360	H5
3362	D18
3364	L15
3365	K15
3366	L16
3367	M12
3368	M11
3369	N11
3370	M10
3371	A21
3372	A21
3373	H22
3376	J19
3377	I19
3378	H22
3379	H21
3380	O28
3382	M27
3383	D18
3383	J27
3384	K27
3385	L19
3386	M19
3387	N3
3388	L15
3390	G28
3391	D25
3392	D26
3393	D26
3394	D24
3395	D25
3396	C18
3397	D18
3400	C14
3401	L16
3402	M9
3403	E11
3404	L3
3412	K16
3413	C13
3415	J9
3416	C2
3417	M9
3418	J5
3419	K5
3420	L5
3421	L4
3422	F14
3423	D13
3425	C8
3434	B6
3914	D13
3915	F13
5300	A23
5301	A13
5302	H23
6300	H3
6301	E8
6302	E8
7300	C6
7301	F5
7302	G3
7303	H5
7304	A6
7305	C10
7306	O15
7307	G14
7308	B14
7309	H23
7350	C4
7351	H6
7352	A7
7353	B10
7353	C9
7353	C9
7353	D9
7354	A12
7355	I13
7356	M18
7357	E11
7357	M11
7358	B19
7359	I22
7360	L11
7361	L5

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Einstellung für die Deckelektronik

1. Positionseinstellung (3327) (GAP-Position)

- Ya-Eingang eines Oszilloskopes an den Pin 19 des Eurokonnektors 1 (Video-Ausgang) anschließen
- Yb-Eingang des Oszilloskopes an den Pin 9VS22 (HP1-Puls) anschließen
- Oszilloskop auf Yb triggern
- Testkassette 4822 397 30103 wiedergeben
- die "PLAY"-Taste während der Einstellung gedrückt halten
- 3327 so einstellen, daß die positiv verlaufende Flanke des HP1-Signals sich 416 µs ± 32 µs (5,5 Linien) vor der Vorderflanke des Rasterimpulses befindet (siehe Fig. 1)

Setting for the deck electronics

1. Position setting (3327) (GAP position)

- Connect Ya input of an oscilloscope to pin 19 of the Euroconnector 1 (video output)
- Connect Yb input of the oscilloscope to pin 9VS22 (HP1 pulse)
- Trigger oscilloscope on Yb
- Play test cassette 4822 397 30103
- Keep "PLAY" key depressed during setting procedure
- Set 3327 so that the positive flank of the HP1 signal is 416 µs ± 32 µs (5.5 lines) in front of the front flank of the frame impulse (see Fig. 1)

Instelling voor de deckelektronica

1. Positie-instelling (3327) (GAP-positie)

- Ya-ingang van een oscilloscoop op de pin 19 van de euroconnector 1 (video-uitgang) aansluiten
- Yb-ingang van de oscilloscoop op de pin 9VS22 (HP1-puls) aansluiten
- oscilloscoop op Yb triggeren
- testcassette 4822 397 30103 weergeven
- tijdens het instellen de "PLAY"-toets ingedrukt houden
- 3327 zodanig instellen dat de positief lopende flank van het HP-signaal zich 416 µs ± 32 µs (5,5 lijnen) voor de voorflank van de rasterimpuls bevindt (zie figuur 1).

Ajustage pour l'électronique du chassis:

1. Réglage de la position (3327) (position GAP)

- brancher l'entrée Ya d'un oscilloscope sur la broche 19 de l'Euroconnecteur 1 (sortie image)
- brancher l'entrée Yb de l'oscilloscope sur la broche 9VS22 (HP1-Puls)
- déclencher l'oscilloscope à Yb
- reproduire la cassette d'essai 4822 397 30103
- maintenir la touche "PLAY" appuyée pendant le réglage
- régler 3327 de telle façon que le flanc en sens positif du signal HP1 se trouve en avance de 416 µs ± 32 µs (5,5 lignes) sur le flanc avant de l'impulsion de trame (voir fig.1)

Ajustes de la electrónica del deck

1. Regulación de la posición (3327) (Posición GAP)

- Conectar una entrada Ya de un osciloscopio al clavija 19 del euroconector 1 (salida video)
- Conectar la entrada Yb del osciloscopio a la clavija 9VS22 (HP1-Puls)
- Pasar el osciloscopio a Yb
- Reproducir la cassette de prueba 4822 397 30103
- Mantener oprimida la tecla de "PLAY" durante la regulación.
- Regular 3327 de forma que el flanco positivo de la señal HP1 se encuentre 416 µs ± 32 µs (5,5 líneas) antes del flanco delantero del impulso de cuadro (ver Fig.1).

Regolazione del Deck JFBU/DE

1. Regolazione della posizione (3327) (posizione-GAP)

- collegare l'entrata-Ya di un'oscilloscopio a Pin 19 del connettore Euro 1 (uscita video)
- collegare l'entrata-Yb dell'oscilloscopio a Pin 9VS22 (impulso HP1)
- triggerare l'oscilloscopio a Yb
- riprodurre la cassetta test 4822 397 30103
- tener premuto il tasto "PLAY" durante la regolazione
- regolare 3327 in modo che il fronte di salita del segnale HP1 sia in anticipo di 416 µs ± 32 µs (5,5 righe) rispetto al fronte di discesa del sincronismo di quadro (veda fig. 1)

- PLAY ALIGNMENT CASSETTE

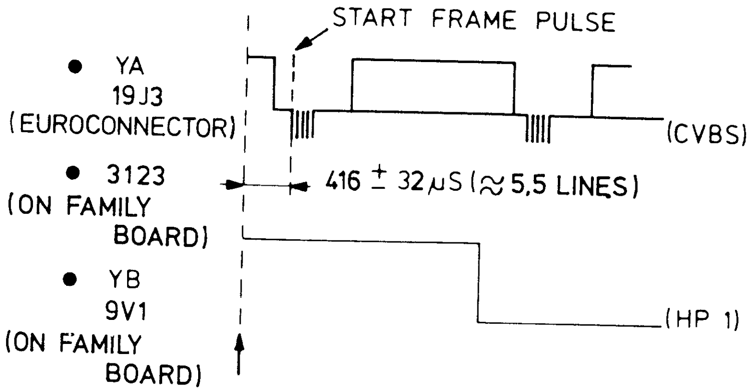
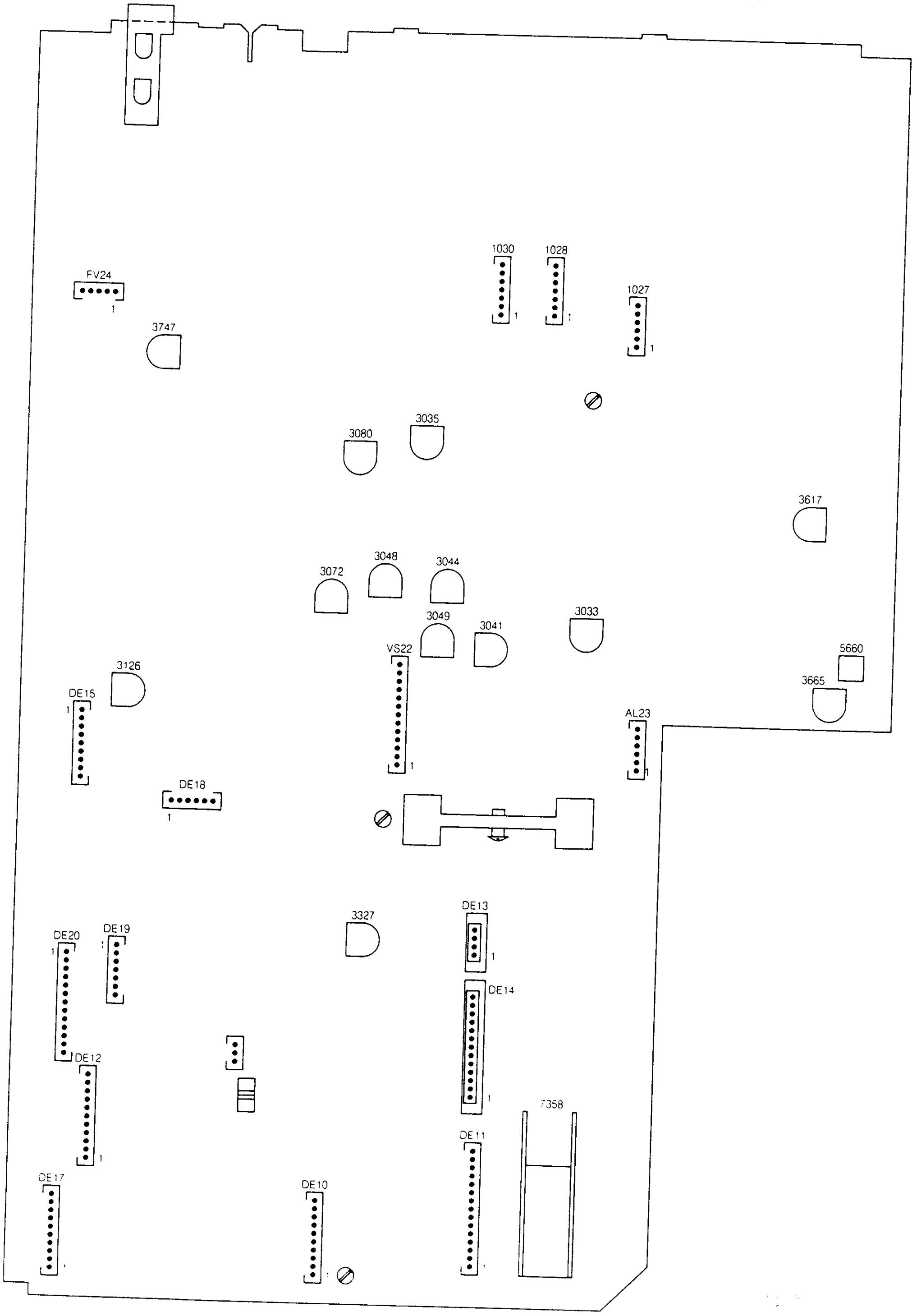

START FRAME PULSE
● YA
19J3
(EUROCONNECTOR)
(CVBS)
● 3123
(ON FAMILY
BOARD)
416 ± 32µS (≈ 5,5 LINES)
● YB
9V1
(ON FAMILY
BOARD)
(HP 1)

fig.1

44 548 A11


FV24
1030
1028
1027
3747
3080
3035
3617
3072
3048
3044
3049
3041
3033
VS22
5660
3126
DE15
3665
AL23
DE18
3327
DE13
DE20
DE19
DE14
DE12
7358
DE11
DE17
DE10

Einstellungen für den Linear - Audioteil JFBU/AL

1. Einstellung der Löschfrequenz (5660)

- Frequenzmesser an den Widerstand 3665 schalten
- Gerät in Stellung "AUFNAHME" bringen.
- Mit Hilfe von 5660 die Löschfrequenz auf 70kHz±500Hz einstellen.

2. Einstellung des Vormagnetisierungsstromes (BIAS) (3665)

- Millivoltmeter an 3630 anschließen (Differenzmessung)
- Gerät in Stellung "AUFNAHME" bringen
- Mit Hilfe von 3665 die Spannung an 3630 auf 10mVeff (70kHz) einstellen.

Kontrolle der Biaseinstellung

Nachdem der "BIAS" mit dem angegebenen Richtwert eingestellt worden ist, ist eine Musikaufnahme nur mit Linear-Audio zu machen. Verwenden Sie Cassetten von bekannten Herstellern, jedoch kein Chromdioxydband. Bei der Wiedergabe dieser Aufnahme muß man nun darauf achten, ob in ausreichendem Maße Höhen wiedergegebenwerden oder, ob der Klang keiner Verzerrung unterliegt. Wenn der Höhenanteil zu gering ist, muß der "BIAS"-Strom reduziert werden, wenn die Verzerrung zu groß ist, muß er erhöht werden.

3. Wiedergabe - Amplitudeneinstellung (3617)

- Aufnahme eines Signals (500mVeff, 1kHz) nur mit Linear-Audio machen
- Millivoltmeter an den Cinch-Audio-Ausgang schalten
- Wiedergabe dieser Aufnahme
- Mit 3617 die Wiedergabe-Amplitude auf 500mVeff einstellen

Instellingen voor het lineair-audiogedeelte JFBU/AL

1. Instelling van de wisfrequentie (5660)

- frequentiemeter over de weerstand 3665 aansluiten
- toestel op "OPNAME" schakelen
- met behulp van 5660 de wisfrequentie op 70 kHz±500 Hz instellen.

2. Instelling van de voormagnetiseringsstroom (BIAS) (3665)

- millivoltmer over 3630 aansluiten (differentiaalmeting)
- toestel op "OPNAME" schakelen
- met behulp van 3630 de spanning op 10 mVeff(70kHz) instellen.

Controle van de biasinstelling

Nadat de "BIAS" op de aangegeven richtwaarde is ingesteld, kan een muziekopname uitsluitend met lineair-audio worden gemaakt. Gebruik hiervoor cassettes van een bekend merk, maar geen chroomdioxydeband. Bij de weergave van deze opname dient men erop te letten of de hoge tonen in voldoende mate worden weergegeven en of het geluid niet vervormd klinkt. Is het aandeel hoge tonen te klein, dan moet de "BIAS"-stroom worden gereduceerd, als het geluid te sterk vervormd klinkt, dan moet deze worden vergroot.

3. Instelling van de weergave-amplitudes (3617)

- opname van een signaal (500mVeff, 1kHz) alleen maken met lineair-audio
- millivoltmer op de cinch-audio-uitgang aansluiten
- weergave van deze opname
- met behulp van 3617 de weergave-amplitude op 500mVeff instellen.

Settings for the linear audio component JFBU/AL

Réglages de la section son linéaire JFBU/AL

1. Setting of the erasing frequency (5660) [illegible] 1. Réglage de la fréquence d'effacement (5660) [illegible]

e sur la résistance 3665
tion "Enregistrement"
équence d'effacement sur

prémagnétisation (BIAS) (3665)

ur 3630 (mesure différentielle)
"Enregistrement"
nsion du 3630 sur 10mVeff (70kHz)

lage du BIAS sur la valeur cote
ler à un enregistrement musical
nent. Utiliser à cet effet une cas-
ais en aucun cas une cassette
s de la lecture de cet enregistre-
èrement que les aigüs sont suf-
le son ne subit pas de
güs est insuffisante, réduire le
on est trop importante , aug-

de lecture (3617)

'un signal (500mVeff, 1kHz)
aire
ur la sortie Cinch-Audio

e sur 500mVeff avec le 3617

- Connect frequency meter to resistor 3665
- Bring unit into mode "RECORD".
- Set erasing frequency to 70 kHz±500Hz with 5660

2. Setting of the bias current (BIAS) (3665)

- Connect millivoltmeter to 3630 (differential measurement)
- Bring unit into mode "RECORD"
- Set voltage at 3660 to 10 mVeff (70 kHz) with 3665.

Checking the bias setting

After "BIAS" has been set with the indicated approximate value, make a music recording with linear audio alone. Use cassettes made by well-known manufacturers, but do not use chromium dioxide tape. When reproducing this recording, note whether the highs are sufficiently reproduced or whether the sound is not subject to distortion. If the share of the highs is not sufficient, the "BIAS" current must be reduced; if distortion is too great, it must be increased.

3. Playback - amplitude setting (3617)

- Record a signal (500 mVeff, 1 kHz) with linear audio alone
- Connect millivoltmeter to the cinch audio output
- Reproduce this recording
- Set the playback amplitude to 500 mVeff with 3617

- brancher un fréquencemètr
- mettre l'appareil sur la posi
- à l'aide du 5660 régler la fr
  70kHz± 500Hz

2. Réglage du courant de

- brancher un millivoltmètre s
- mettre l'appareil en positior
- à l'aide du 3665 régler la te

Contrôle du réglage BIAS:

Après avoir effectuè le rég
ci-dessus indiquée, procéd
avec le son linéaire seulen
sette de bonne marque, m
au dioxyde de chrome. Lor
ment, vérifier tout particuli
fisamment restitués et que
distorsion. Si la part des ai
courant BIAS; si la distorsi
menter le courant BIAS.

3. Réglage de l'amplitude

- effectuer l'enregistrement c
  seulement avec le son linéa
- brancher un millivoltmètre s
- lire l'enregistrement
- ajuster l'amplitude de lectu

Ajustes del circuito de audio lineal JFBU/AL

1. Regulación de la frecuencia de borrado (5660)

- Conectar un frecuencímetro a la resistencia 3665
- Colocar el aparato en posición de "GRABACION" (Aufnahme)
- Con ayuda de 5660, regular la frecuencia de borrado a 70kHz±500Hz

2. Regulación de la corriente de premagnetización (BIAS) (3665)

- Conectar el milivoltímetro a 3630 (medición diferencial)
- Colocar el aparato en posición de "GRABACION"
- Con ayuda de 3665, regular la tensión de 3630 a 10 mVeff (70kHz).

Control de la regulación de BIAS

Una grabación musical sólo puede realizarse con audio lineal después de regular el "BIAS" (polarización) con el valor normativo. Deben utilizarse casetes de marcas conocidas, pero no cintas de dióxido de cromo. Al reproducir la grabación hay que observar si los tonos agudos se reproducen suficientemente o si hay alguna distorsión del sonido. Cuando la parte de tonos agudos es deficiente, debe reducirse la corriente del "BIAS", cuando la distorsión es demasiado grande, hay que aumentarla.

3. Regulación de amplitud de reproducción (3617)

- Grabación de una señal (500 mVeff, lkHz) sólo con audio lineal
- Conectar el milivoltímetro a la salida CINCH-audio
- Reproducción de esa grabación
- Regular con 3617 la amplitud de la reproducción a 500 mV.

Regolazioni per la parte audio lineare JFBU/AL

1. Regolazione della frequenza di cancellazione (5660)

- collegare il frequenzimetro al potenziometro 3665
- portare il registratore in posizione "REGISTRAZIONE"
- regolare la frequenza di cancellazione a 70kHz±500Hz con l'aiuto di 5660

2. Regolazione della corrente di premagnetizzazione (BIAS) (3665)

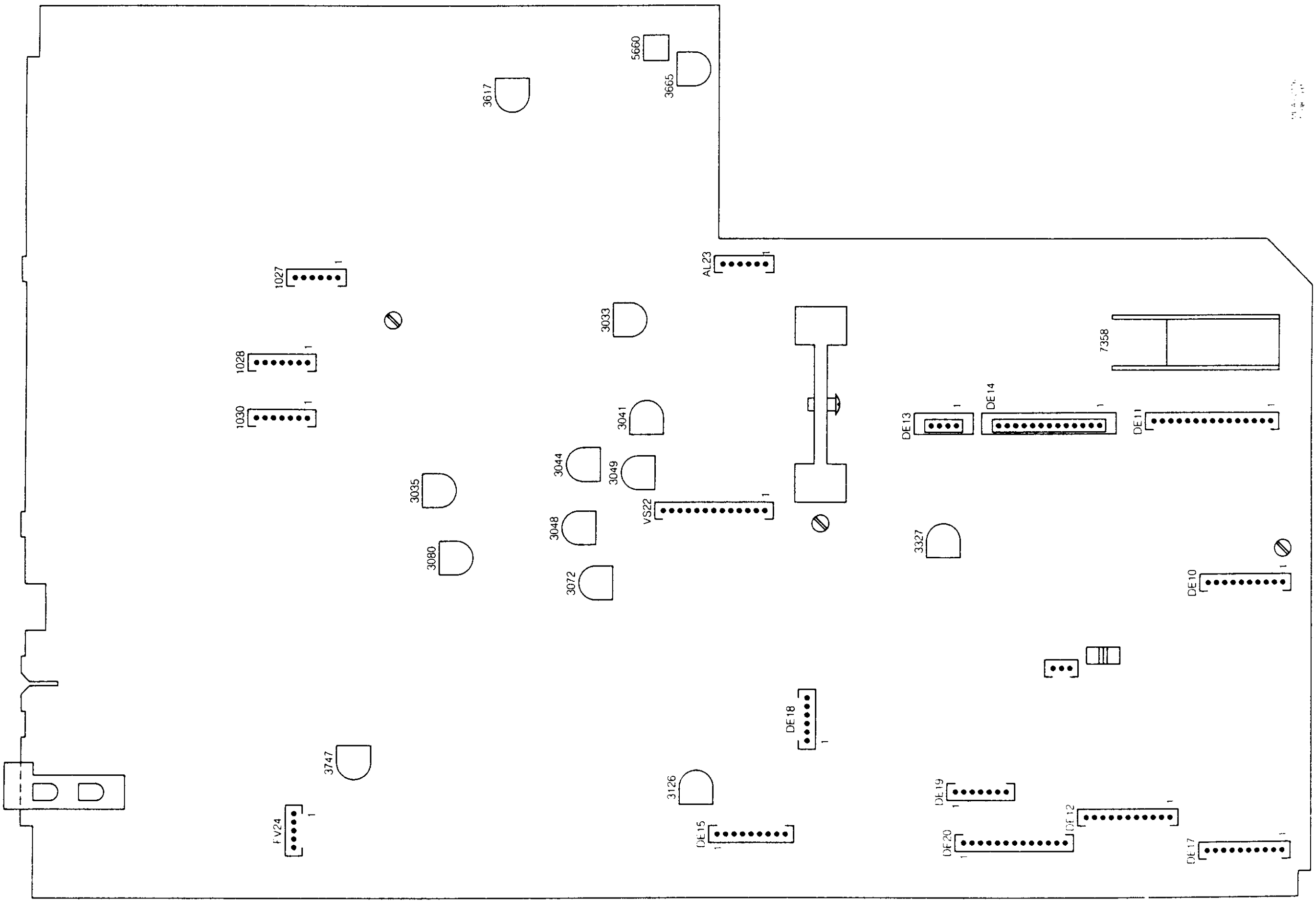
- collegare un millivoltmetro a 3630 (misurazione differenziale)
- portare l'apparecchio in posizione "REGISTRAZIONE"
- regolare la tensione (a 3630) a 10mVeff (70kHz) con l'aiuto di 3665

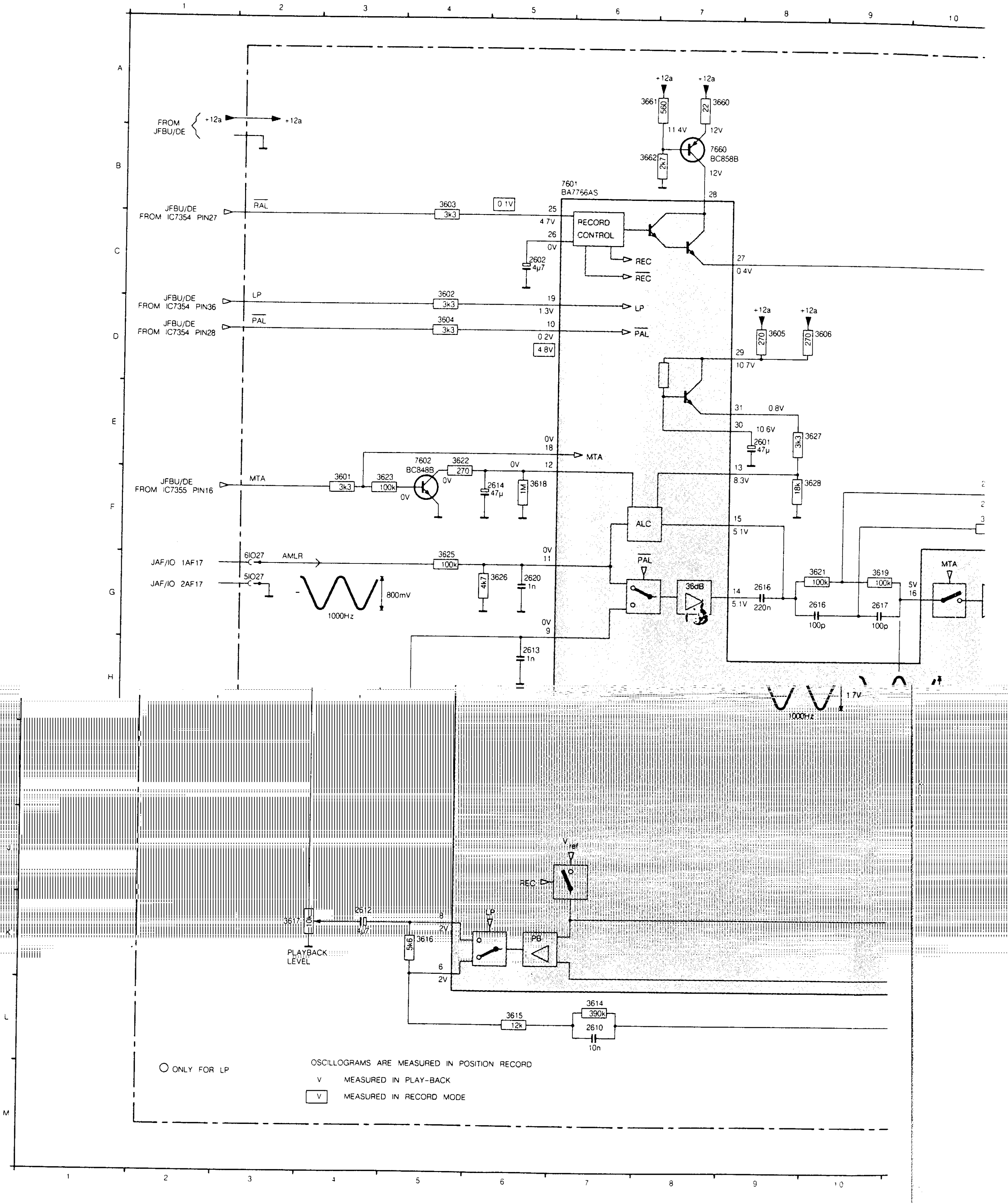
Controllo della regolazione BIAS (corrente di premagnetizzazione)

Dopo aver regolato il "BIAS" con il valore indicato bisogna fare una registrazione di musica soltanto con audio lineare. Usi cassette di produttori noti (non nastri "Chromdioxyd"). Durante la riproduzione di questa registrazione bisogna controllare se vengono riprodotte sufficentemente le frequenze alte e se il suono non viene distorto. Se il livello delle frequenze alte è basso bisogna ridurre un poco la corrente di premagnetizzazione. Se la distorsione è troppo grande bisogna aumentare un poco la corrente di premagnetizzazione.

3. Regolazione dell'ampiezza (3617) durante la riproduzione

- registrare un segnale (500mVeff, 1kHz) soltanto con audio lineare
- collegare un millivoltmetro all'uscita Audio-Cinch
- riprodurre questa registrazione
- regolare con 3617 l'ampiezza di registrazione a 500mVeff



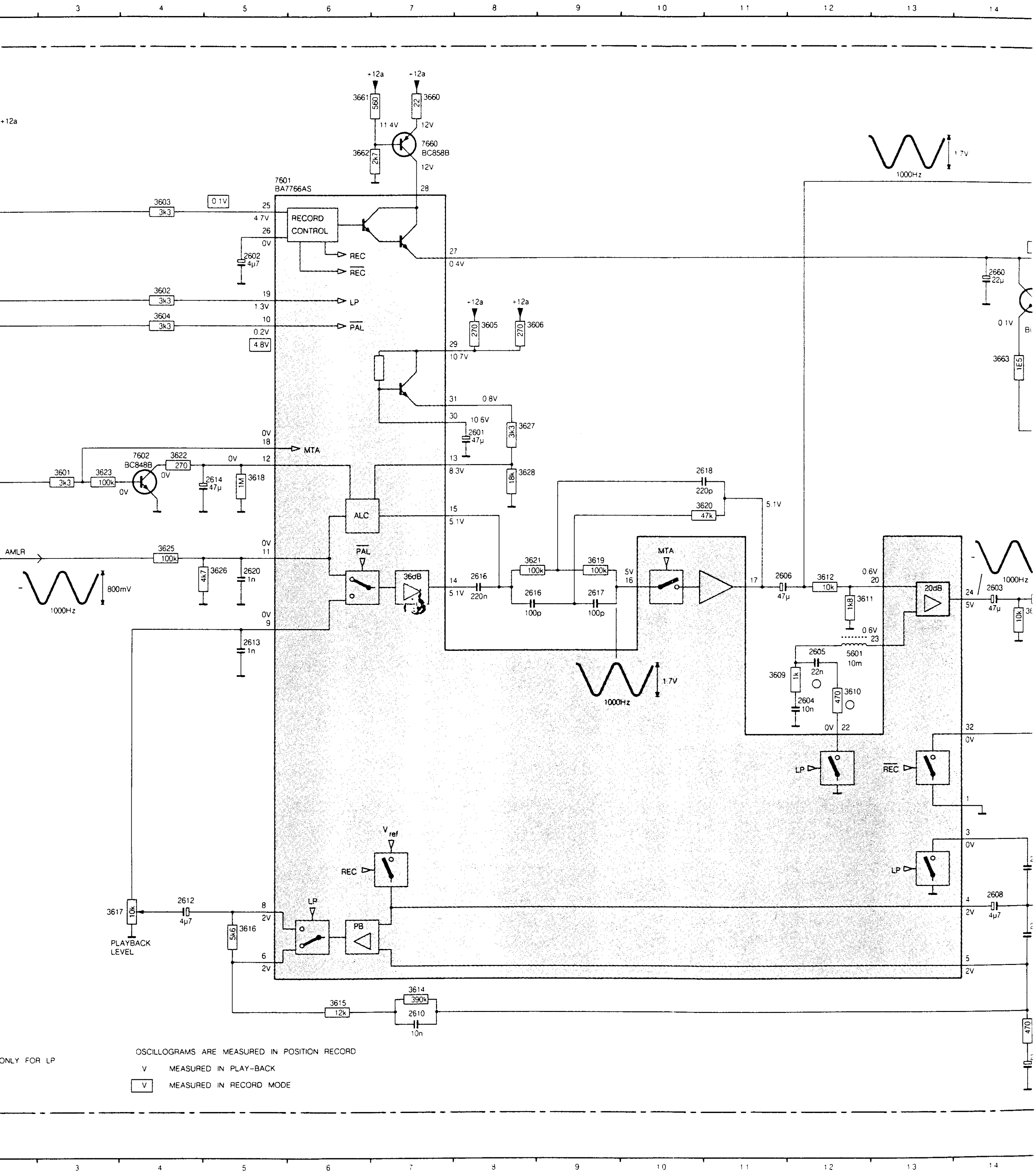

FROM JFBU/DE
+12a
JFBU/DE FROM IC7354 PIN27
RAL
JFBU/DE FROM IC7354 PIN36
LP
JFBU/DE FROM IC7354 PIN28
PAL
JFBU/DE FROM IC7355 PIN16
MTA
JAF/IO 1AF17
JAF/IO 2AF17
6IO27
5IO27
AMLR
800mV
1000Hz
3603 3k3
3602 3k3
3604 3k3
3601 3k3
3623 100k
3622 270
3625 100k
3626 4k7
2620 1n
2613 1n
2614 47µ
3618 1M
2602 4µ7
7602 BC848B
7601 BA7766AS
RECORD CONTROL
REC
ALC
36dB
3661 560
3660 22
3662 2k7
7660 BC858B
11.4V
12V
3605 270
3606 270
3627 3k3
3628 18k
2601 47µ
2616 220n
3621 100k
3619 100k
2616 100p
2617 100p
MTA
5V
1.7V
1000Hz
Vref
LP
PB
3617 10k
PLAYBACK LEVEL
2612 4µ7
3616 5k6
3615 12k
3614 390k
2610 10n
0.1V
4.7V
1.3V
0.2V
4.8V
10.7V
0.8V
10.6V
8.3V
5.1V
0.4V
2V
A
B
C
D
E
F
G
H
K
L
M
1
2
3
4
5
6
7
8
9
10

O ONLY FOR LP

OSCILLOGRAMS ARE MEASURED IN POSITION RECORD

V MEASURED IN PLAY-BACK

[V] MEASURED IN RECORD MODE

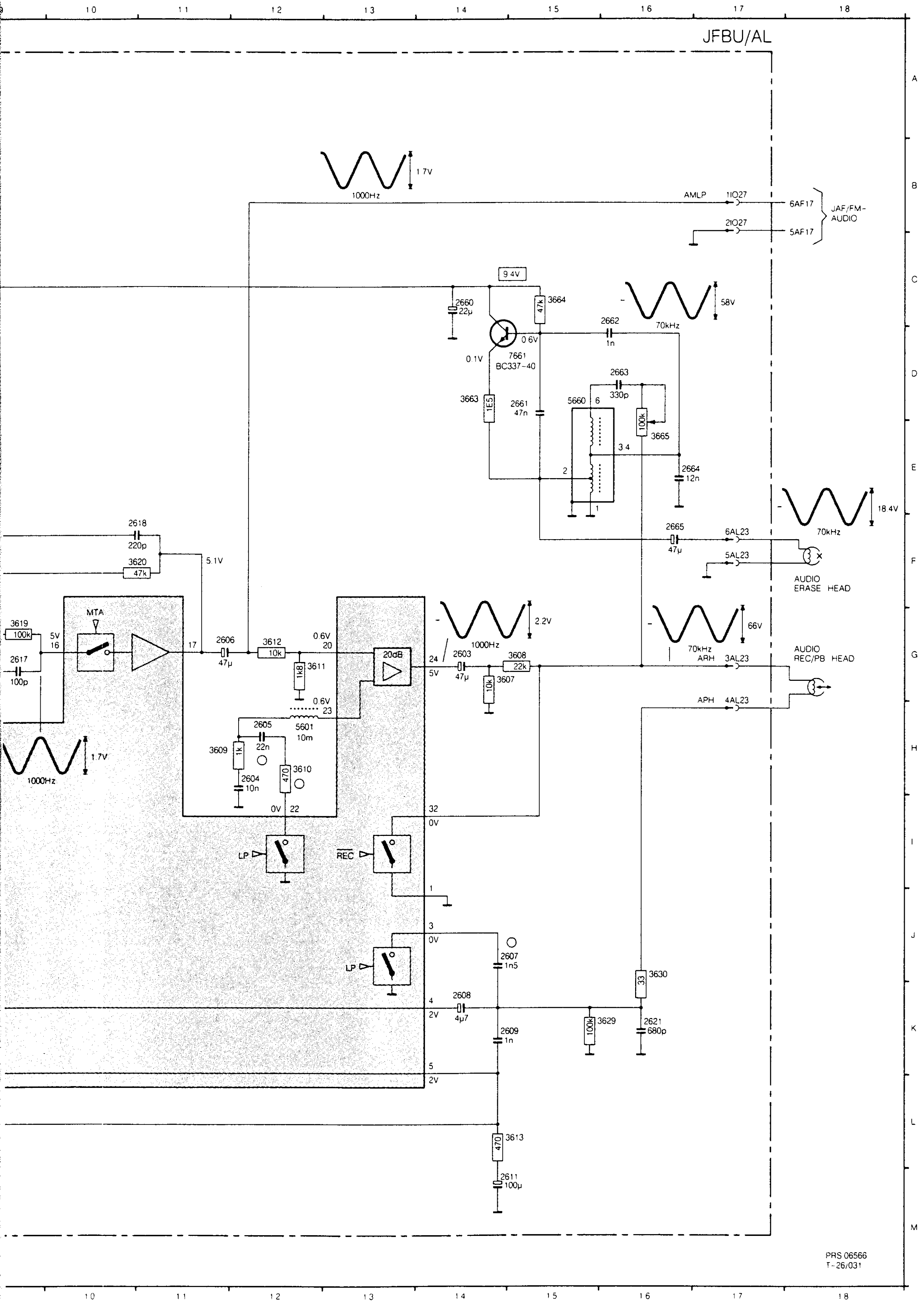

3
4
5
6
7
8
9
10
11
12
13
14
+12a
+12a
+12a
3661
560
22
3660
11.4V
12V
7660
BC858B
3662
2k7
12V
7601
BA7766AS
28
3603
3k3
0.1V
25
4.7V
RECORD
CONTROL
26
0V
2602
4μ7
REC
REC
27
0.4V
3602
3k3
19
1.3V
LP
3604
3k3
10
0.2V
PAL
4.8V
+12a
+12a
270
3605
270
3606
29
10.7V
31
0.8V
30
10.6V
2601
47μ
3k3
3627
0V
18
MTA
13
8.3V
18k
3628
7602
BC848B
3622
270
0V
12
0V
2614
47μ
1M
3618
3601
3k3
3623
100k
0V
ALC
15
5.1V
2618
220p
3620
47k
5.1V
AMLR
3625
100k
0V
11
4k7
3626
2620
1n
800mV
1000Hz
PAL
36dB
14
5.1V
2616
220n
3621
100k
3619
100k
5V
16
2616
100p
2617
100p
MTA
17
2606
47μ
3612
10k
0.6V
20
1k8
3611
20dB
24
5V
2603
47μ
10k
1000Hz
0V
9
2613
1n
1.7V
1000Hz
0.6V
23
2605
22n
5601
10m
3609
1k
2604
10n
470
3610
0V
22
LP
32
0V
REC
1
3
0V
LP
Vref
REC
LP
PB
3617
10k
PLAYBACK
LEVEL
2612
4μ7
8
2V
5k6
3616
6
2V
4
2V
2608
4μ7
5
2V
3615
12k
3614
390k
2610
10n
470
1.7V
1000Hz
2660
22μ
0.1V
3663
1E5

ONLY FOR LP

OSCILLOGRAMS ARE MEASURED IN POSITION RECORD

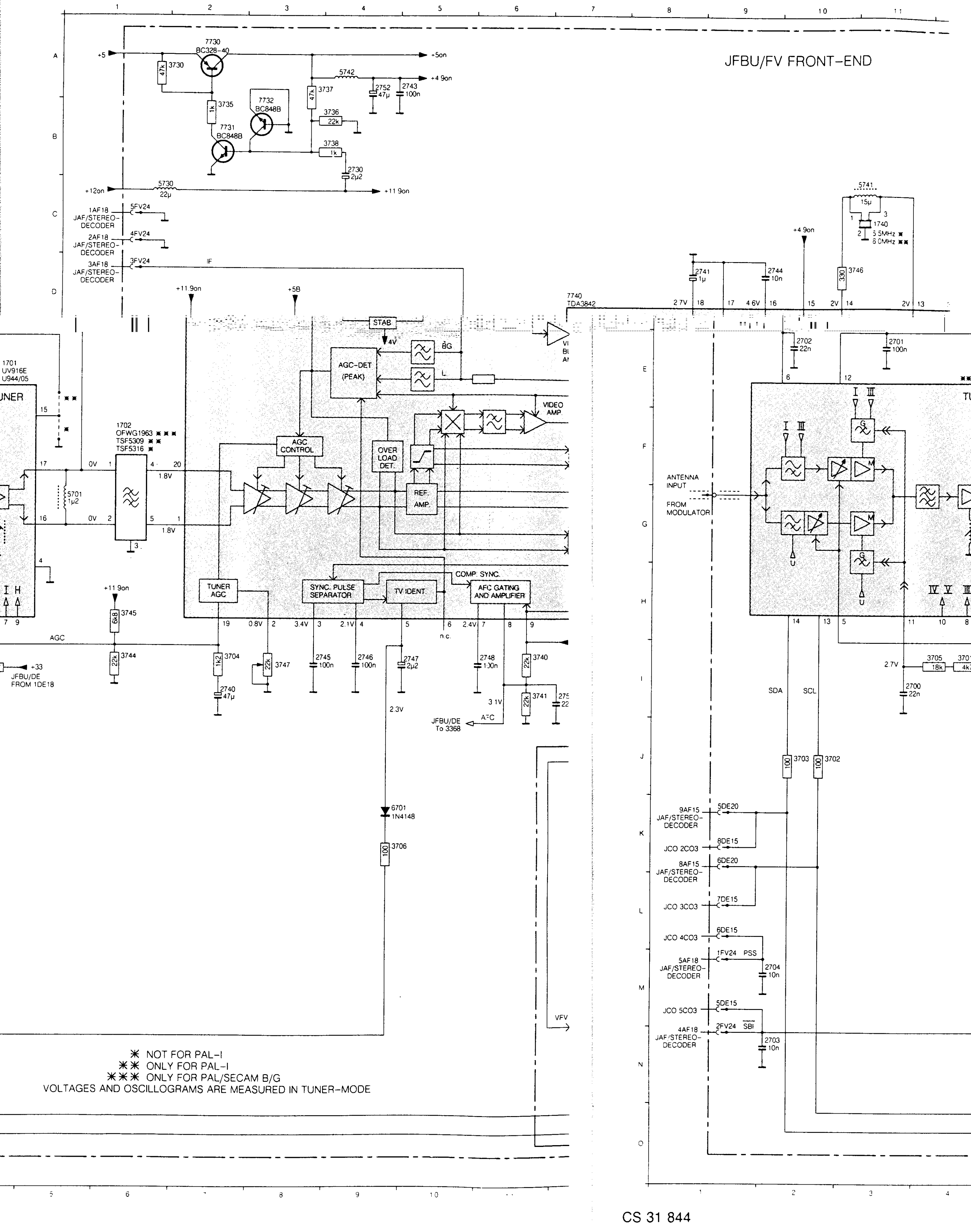
V MEASURED IN PLAY-BACK

[V] MEASURED IN RECORD MODE

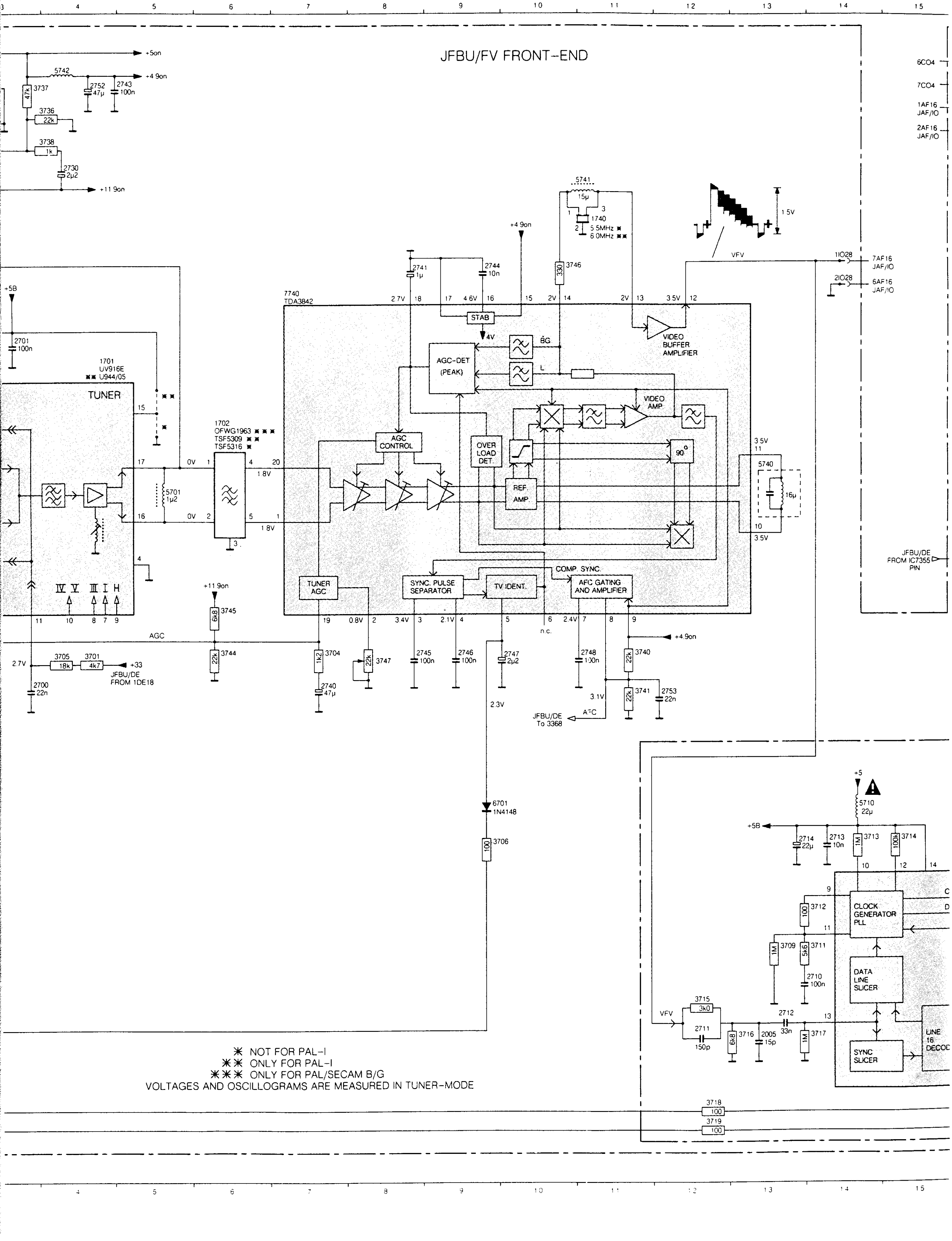

JFBU/AL
1000Hz
1.7V
AMLP
1IO27
2IO27
6AF17
5AF17
JAF/FM-AUDIO
9.4V
2660 22µ
3664 47k
7661 BC337-40
0.1V
0.6V
2662 1n
58V
70kHz
2663 330p
3663 1E5
2661 47n
5660
3665 100k
2664 12n
18.4V
2665 47µ
6AL23
5AL23
AUDIO ERASE HEAD
2618 220p
3620 47k
5.1V
3619 100k
5V
16
2617 100p
MTA
17
2606 47µ
3612 10k
0.6V
20
3611 1k8
20dB
24
5V
2603 47µ
3608 22k
3607 10k
2.2V
66V
ARH 3AL23
AUDIO REC/PB HEAD
APH 4AL23
0.6V
23
5601 10m
2605 22n
3609 1k
2604 10n
3610 470
0V 22
32
0V
LP
REC
1
3
0V
2607 1n5
3630 33
4
2V
2608 4µ7
2609 1n
3629 100k
2621 680p
5
2V
3613 470
2611 100µ
A
B
C
D
E
F
G
H
I
J
K
L
M
10
11
12
13
14
15
16
17
18
PRS 06566
T-26/031

2601	E8
2602	C5
2603	G14
2604	H12
2605	H12
2606	G11
2607	J14
2608	K14
2609	K14
2610	L7
2611	M14
2612	K4
2613	H5
2614	F5
2615	G8
2616	G8
2617	G9
2618	F11
2620	G5
2621	K16
2660	C14
2661	D15
2662	C16
2663	D16
2664	E16
2665	F16
3601	F3
3602	C4
3603	B4
3604	D4
3605	D8
3606	D8
3607	G14
3608	G15
3609	H11
3610	H12
3611	G12
3612	G12
3613	L14
3614	L7
3615	L6
3616	K5
3617	K4
3618	F5
3619	G9
3620	F11
3621	G8
3622	E4
3623	F3
3625	G4
3626	G5
3627	E8
3628	F8
3629	K15
3630	J16
3660	A7
3661	A6
3662	B6
3663	D14
3664	C15
3665	E16
5601	H12
5660	D15
7601	B5
7602	E4
7660	B7
7661	D15

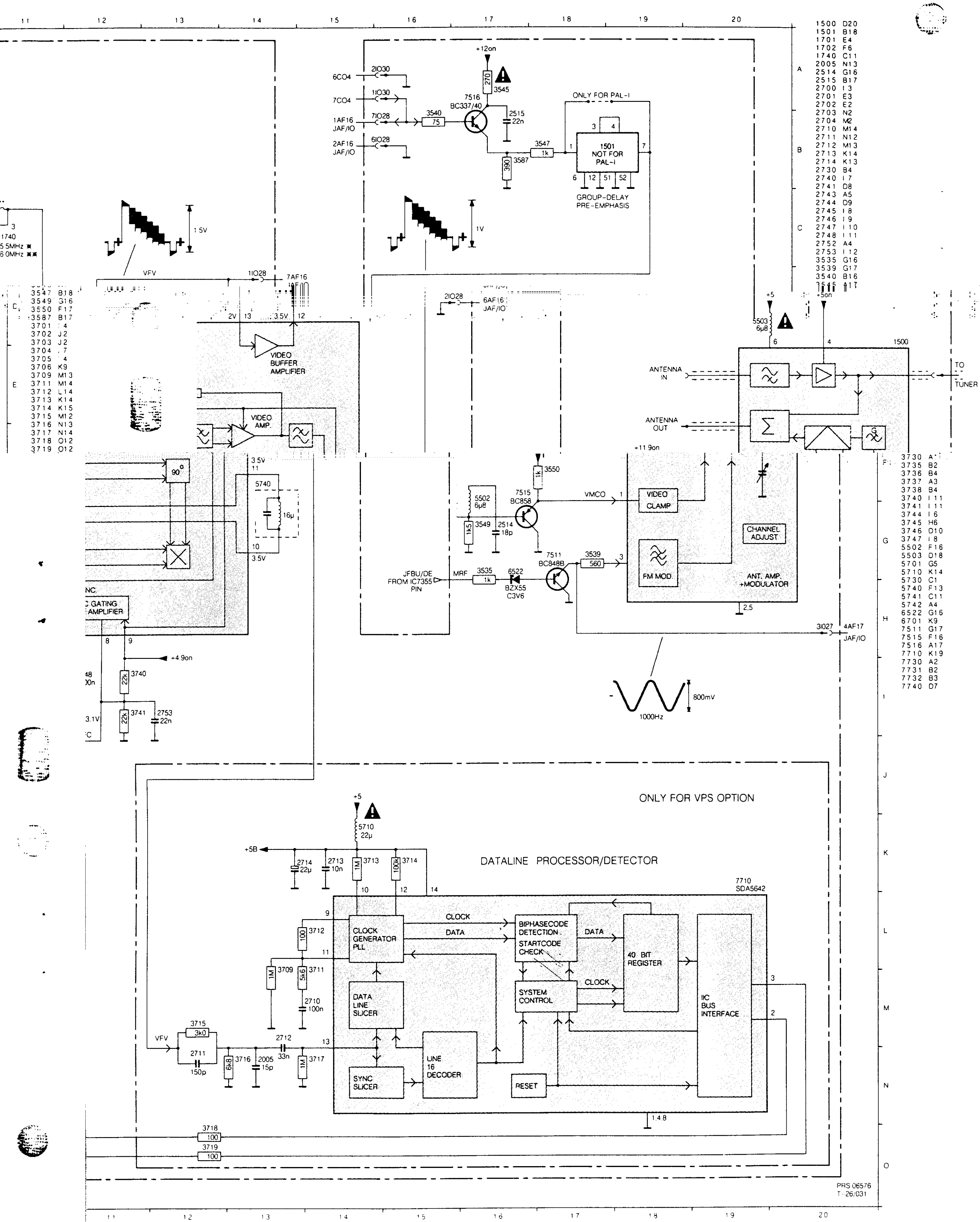
Family board JFBU/FV


JFBU/FV FRONT-END
7730
BC328-40
7731
BC848B
7732
BC848B
3730
47k
3735
1k
3737
47k
3736
22k
3738
1k
5742
2752
47µ
2743
100n
2730
2µ2
5730
22µ
+5
+5on
+4.9on
+12on
+11.9on
1AF18
2AF18
3AF18
JAF/STEREO-DECODER
5FV24
4FV24
3FV24
IF
+11.9on
+5B
STAB
4V
BG
L
AGC-DET
(PEAK)
VIDEO AMP.
AGC CONTROL
OVER LOAD DET.
REF. AMP.
1701
UV916E
U944/05
TUNER
1702
OFWG1963 ✱✱✱
TSF5309 ✱✱
TSF5316 ✱
5701
1µ2
0V
1.8V
TUNER AGC
SYNC. PULSE SEPARATOR
TV IDENT.
COMP. SYNC.
AFC GATING AND AMPLIFIER
n.c.
AGC
3745
6k8
3744
22k
3704
1k2
2740
47µ
3747
22k
2745
100n
2746
100n
2747
2µ2
2748
100n
3740
22k
3741
22k
JFBU/DE FROM 1DE18
+33
JFBU/DE To 3368
AFC
3.1V
2.3V
6701
1N4148
3706
100
VFV
7740
TDA3842
2741
1µ
2744
10n
3746
330
5741
15µ
1740
5.5MHz ✱
6.0MHz ✱✱
+4.9on
2702
22n
2701
100n
ANTENNA INPUT
FROM MODULATOR
SDA
SCL
3705
18k
2700
22n
2.7V
3703
100
3702
100
9AF15
8AF15
5AF18
4AF18
JAF/STEREO-DECODER
JCO 2CO3
JCO 3CO3
JCO 4CO3
JCO 5CO3
5DE20
8DE15
6DE20
7DE15
6DE15
1FV24 PSS
5DE15
2FV24 SBI
2704
10n
2703
10n
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

✱ NOT FOR PAL-I
✱✱ ONLY FOR PAL-I
✱✱✱ ONLY FOR PAL/SECAM B/G
VOLTAGES AND OSCILLOGRAMS ARE MEASURED IN TUNER-MODE


JFBU/FV FRONT-END
+5on
+4.9on
+11.9on
5742
3737 47k
2752 47µ
2743 100n
3736 22k
3738 1k
2730 2µ2
+5B
2701 100n
1701 UV916E
✱✱ U944/05
TUNER
15
17
16
4
11 10 8 7 9
IV V III I H
5701 1µ2
0V
1702
OFWG1963 ✱✱✱
TSF5309 ✱✱
TSF5316 ✱
1.8V
7740 TDA3842
2741 1µ
2744 10n
+4.9on
5741 15µ
1740
5.5MHz ✱
6.0MHz ✱✱
3746 330
VFV
1.5V
1I028
2I028
7AF16 JAF/IO
6AF16 JAF/IO
6CO4
7CO4
1AF16 JAF/IO
2AF16 JAF/IO
STAB
4V
BG
L
AGC-DET (PEAK)
VIDEO BUFFER AMPLIFIER
VIDEO AMP
AGC CONTROL
OVER LOAD DET.
REF. AMP.
90°
5740 16µ
3.5V
COMP. SYNC.
TUNER AGC
SYNC. PULSE SEPARATOR
TV IDENT.
AFC GATING AND AMPLIFIER
n.c.
AGC
2.7V
3705 18k
3701 4k7
+33
JFBU/DE FROM 1DE18
2700 22n
+11.9on
3745 6k8
3744 22k
3704 1k2
2740 47µ
3747 22k
2745 100n
2746 100n
2747 2µ2
2.3V
2748 100n
3740 22k
3741 22k
2753 22n
3.1V
AFC
JFBU/DE To 3368
+4.9on
JFBU/DE FROM IC7355 PIN
6701 1N4148
3706 100
+5
5710 22µ
+5B
2714 22µ
2713 10n
3713 1M
3714 100k
3712 100
3709 1M
3711 5k6
2710 100n
CLOCK GENERATOR PLL
DATA LINE SLICER
SYNC SLICER
LINE 16 DECOD
VFV
3715 3k0
2711 150p
2712 33n
3716 6k8
2005 15p
3717 1M
3718 100
3719 100

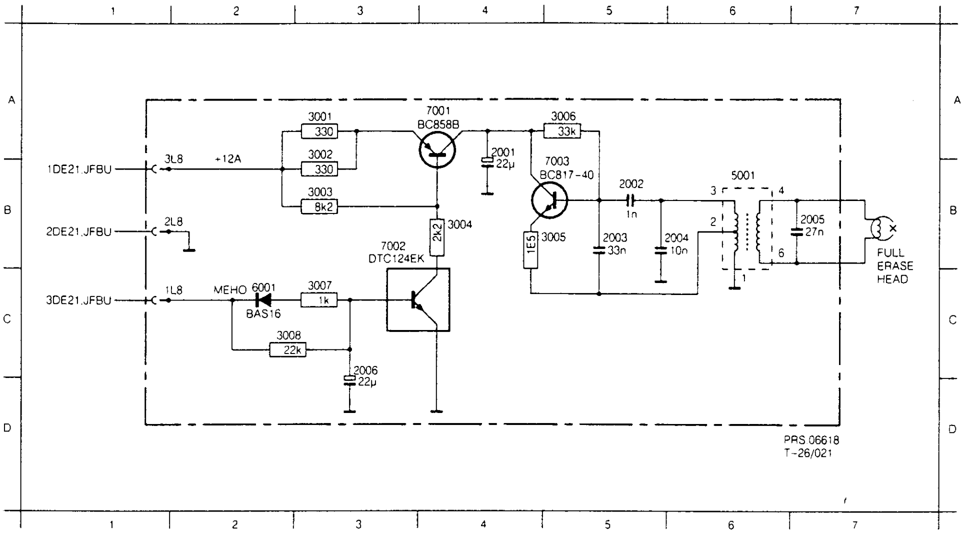
✱ NOT FOR PAL-I
✱✱ ONLY FOR PAL-I
✱✱✱ ONLY FOR PAL/SECAM B/G
VOLTAGES AND OSCILLOGRAMS ARE MEASURED IN TUNER-MODE

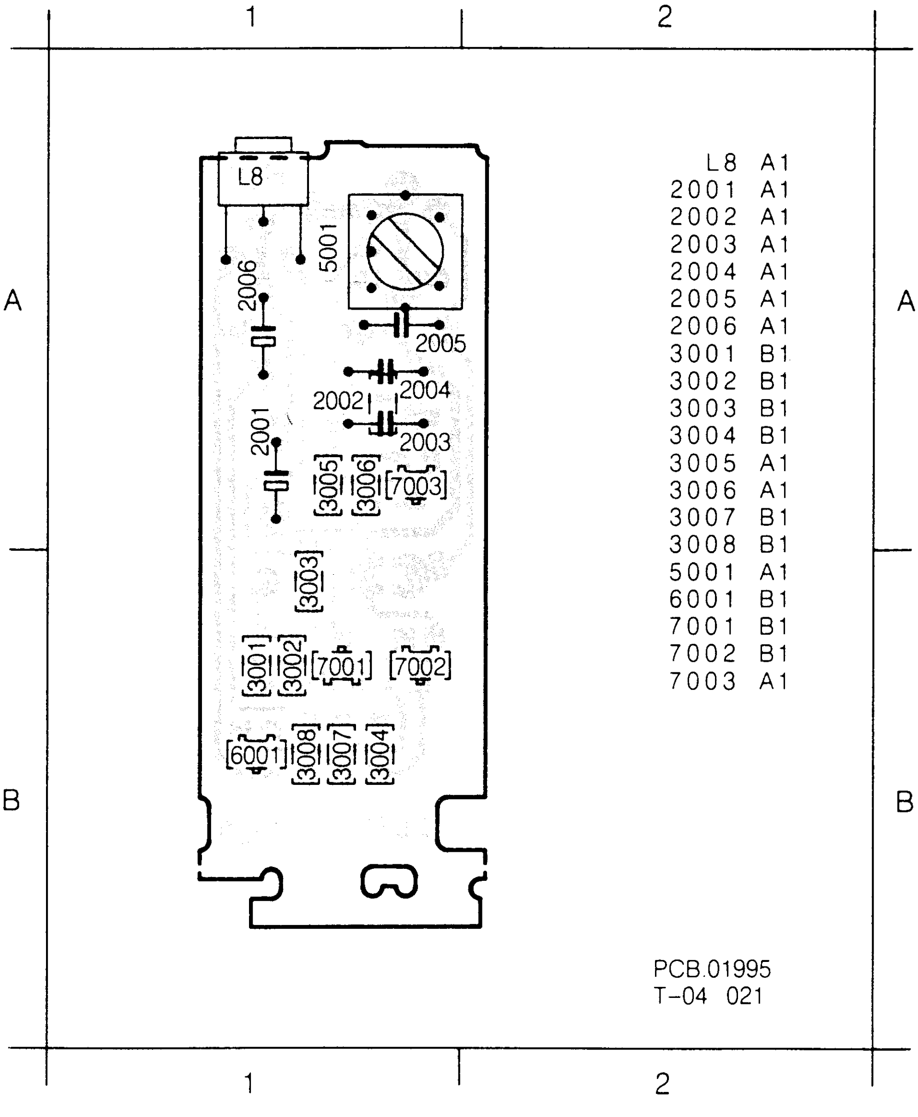

11
12
13
14
15
16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
6C04
7C04
1AF16
JAF/IO
2AF16
JAF/IO
21030
11030
71028
61028
+12on
270
3545
7516
BC337/40
3540
75
2515
22n
3547
1k
390
3587
ONLY FOR PAL-I
1501
NOT FOR
PAL-I
GROUP-DELAY
PRE-EMPHASIS
1.5V
1V
1740
5.5MHz ✱
6.0MHz ✱✱
VFV
11028
7AF16
2V
3.5V
VIDEO
BUFFER
AMPLIFIER
VIDEO
AMP.
90°
5740
16μ
3.5V
SYNC
GATING
AMPLIFIER
+4.9on
22k
3740
22k
3741
2753
22n
3.1V
21028
6AF16
JAF/IO
+5
5503
6μ8
+5on
1500
ANTENNA
IN
ANTENNA
OUT
TO
TUNER
+11.9on
3550
1k
5502
6μ8
7515
BC858
VMCO
VIDEO
CLAMP
1k5
3549
2514
18p
CHANNEL
ADJUST
7511
BC848B
3539
560
FM MOD.
ANT. AMP.
+MODULATOR
JFBU/DE
FROM IC7355
PIN
MRF
3535
1k
6522
BZX55
C3V6
2.5
31027
4AF17
JAF/IO
800mV
1000Hz
ONLY FOR VPS OPTION
+5
5710
22μ
+5B
2714
22μ
2713
10n
1M
3713
100k
3714
DATALINE PROCESSOR/DETECTOR
7710
SDA5642
CLOCK
GENERATOR
PLL
CLOCK
DATA
BIPHASECODE
DETECTION
STARTCODE
CHECK
DATA
40 BIT
REGISTER
SYSTEM
CONTROL
CLOCK
IIC
BUS
INTERFACE
100
3712
1M
3709
5k6
3711
2710
100n
DATA
LINE
SLICER
3715
3k0
VFV
2711
150p
6k8
3716
2005
15p
2712
33n
1M
3717
SYNC
SLICER
LINE
16
DECODER
RESET
1.4.8
3718
100
3719
100
PRS 06576
T-26/031

1500	D20
1501	B18
1701	E4
1702	F6
1740	C11
2005	N13
2514	G16
2515	B17
2700	I 3
2701	E3
2702	E2
2703	N2
2704	M2
2710	M14
2711	N12
2712	M13
2713	K14
2714	K13
2730	B4
2740	I 7
2741	D8
2743	A5
2744	D9
2745	I 8
2746	I 9
2747	I 10
2748	I 11
2752	A4
2753	I 12
3535	G16
3539	G17
3540	B16
3545	A17
3547	B18
3549	G16
3550	F17
3587	B17
3701	4
3702	J2
3703	J2
3704	7
3705	4
3706	K9
3709	M13
3711	M14
3712	L14
3713	K14
3714	K15
3715	M12
3716	N13
3717	N14
3718	O12
3719	O12
3730	A
3735	B2
3736	B4
3737	A3
3738	B4
3740	I 11
3741	I 11
3744	I 6
3745	H6
3746	D10
3747	I 8
5502	F16
5503	D18
5701	G5
5710	K14
5730	C1
5740	F13
5741	C11
5742	A4
6522	G16
6701	K9
7511	G17
7515	F16
7516	A17
7710	K19
7730	A2
7731	B2
7732	B3
7740	D7

Main erase oscillator MEO

2001	A 4
2002	B 5
2003	B 5
2004	B 6
2005	B 7
2006	C 3
3001	A 3
3002	A 3
3003	B 3
3004	B 4
3005	B 5
3006	A 5
3007	C 3
3008	C 2
5001	B 6
6001	C 2
7001	A 4
7002	B 3
7003	B 5


1
2
3
4
5
6
7
A
B
C
D
1DE21.JFBU
2DE21.JFBU
3DE21.JFBU
3L8
2L8
1L8
+12A
MEHO
6001
BAS16
3001
330
3002
330
3003
8k2
3007
1k
3008
22k
2006
22µ
7001
BC858B
2001
22µ
3004
2k2
7002
DTC124EK
3006
33k
7003
BC817-40
3005
1E5
2002
1n
2003
33n
2004
10n
5001
2005
27n
FULL
ERASE
HEAD
PRS.06618
T-26/021


1
2
A
B
L8
5001
2006
2001
2005
2002
2004
2003
3005
3006
7003
3003
3001
3002
7001
7002
6001
3008
3007
3004

L8	A1
2001	A1
2002	A1
2003	A1
2004	A1
2005	A1
2006	A1
3001	B1
3002	B1
3003	B1
3004	B1
3005	A1
3006	A1
3007	B1
3008	B1
5001	A1
6001	B1
7001	B1
7002	B1
7003	A1

PCB.01995
T-04 021

Adjustments on MEO

1.1 Adjustments of the erase frequency

- Select the record mode
- Measure on the erase head by means of a frequency meter
- Adjust 5001 for a frequency of 70 kHz+/-10 kHz

Instellingen op Meo

1.1 Instelling van de wisfrequentie

- De videorecorder in de recordermodus brengen
- Met een frequentiemeter aan de wiskop meten
- Met 5001 de frequentie op 70 kHz+/-10 kHz instellen

Réglages à la MEO

1.1 Réglage de la fréquence d'effacement

- Metteez l'appareil au mode REC
- Mesurez la tête d'effacement à l'aide d'un fréquencemètre
- A l'aide de 5001, réglez la fréquence à 70 kHz+/-10 kHz

Einstellungen an MEO

1.1 Einstellung der Löschfrequenz

- Bringen Sie den Video-Recorder in den Rec-Mode
- Messen Sie mit einem Frequenzzhler am Löschkopf
- Stellen Sie mit 5001 die Frequenz auf 70 kHz+/-10 kHz ein

Regolazioni su MEO

1.1 Regolazioni della frequenza di cancellazione

- Porti il video-registratore in posizione REC
- Misuri con un frequenzimetro alla testina di cancellazione
- Regoli con 5001 la frequenza a 70 kHz+/-10 kHz

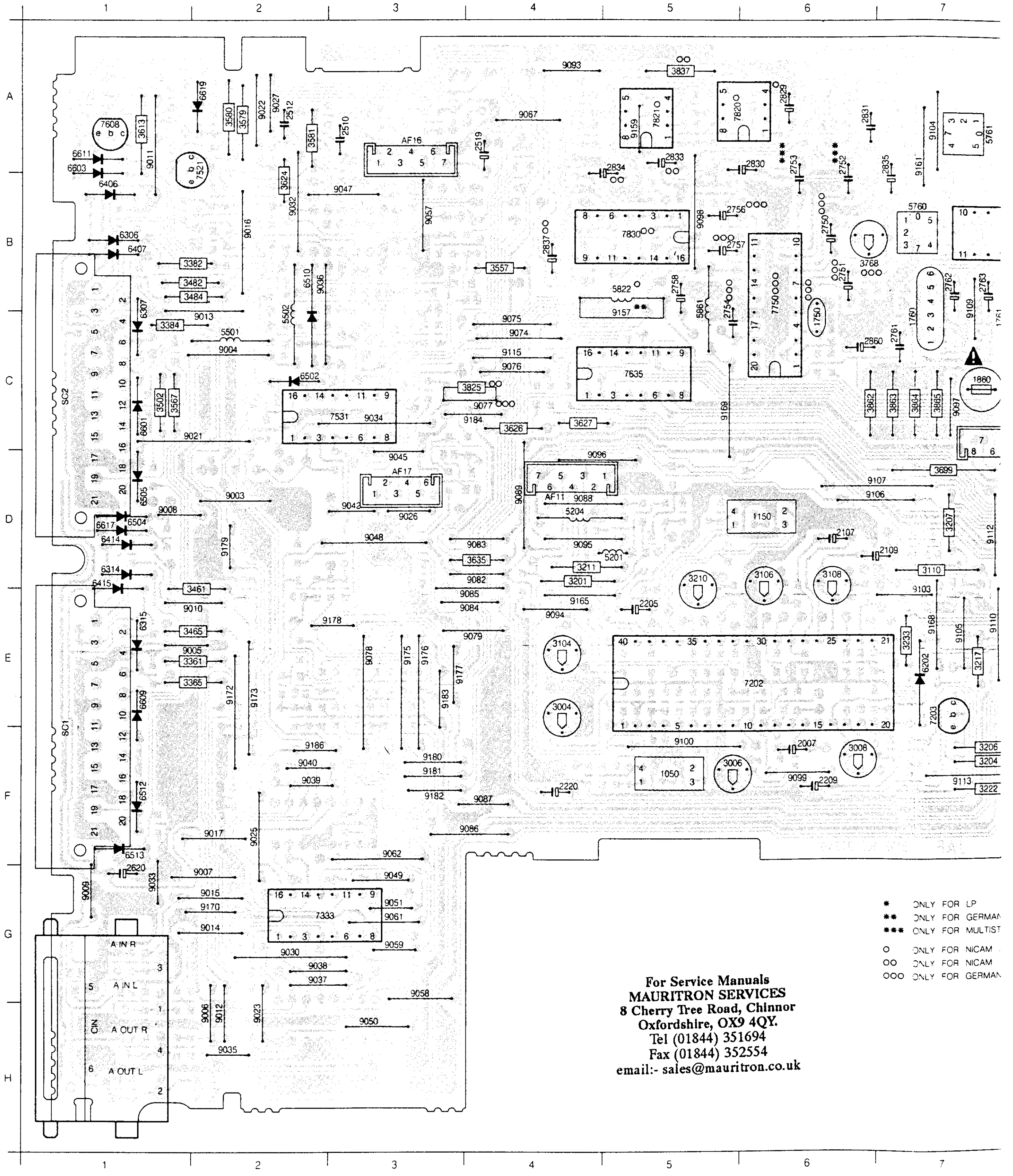
Ajustes en MEO

1.1 Ajuste de la frecuencia borradora

- Ponga el registrador en posición REC
- Mida con un frecuencimetro en la cabeza borradora
- Ajuste con 5001 la frecuencia a 70 kHz+/-10 kHz

FM audio JAF

CI N H1	2010 F12	2111 E12	2216 D11	2763 B7	2837 B4	3207 D7	3365 E1	3635 D4	5762 A8	6407 B1	7202 E6	7860
SC1 F1	2011 F10	2112 E11	2219 D10	2764 B8	2860 C6	3210 D5	3382 B1	3699 D7	5770 C12	6414 D1	7203 E7	9003
SC2 C1	2012 F10	2113 F12	2220 F4	2769 A8	3004 E4	3211 D4	3384 C1	3768 B6	5771 C12	6415 D1	7207 D11	9004
1050 F5	2013 F11	2115 F12	2510 A3	2772 C11	3006 F5	3215 E10	3461 E1	3825 C3	5773 C10	6502 C2	7208 F9	9005
1150 D6	2015 F11	2117 E12	2512 A2	2776 B11	3008 F6	3216 E8	3465 E1	3837 A5	5800 A11	6504 D1	7333 G2	9006
1250 D10	2017 F10	2118 E11	2519 A4	2777 C11	3011 E10	3217 E7	3482 B1	3862 C6	5801 B10	6505 D1	7521 B2	9007
1750 C6	2018 F10	2120 E8	2620 G1	2779 C12	3021 E9	3218 D12	3484 B1	3863 C7	5810 B10	6510 B2	7531 C3	9008
1760 C7	2020 E8	2122 D12	2750 B6	2791 B12	3104 E4	3221 D10	3502 C1	3864 C7	5822 B5	6512 F1	7608 A1	9009
1761 C7	2022 C12	2123 F9	2751 B6	2803 A10	3106 D6	3222 F7	3557 B4	3865 C7	5861 C5	6513 F1	7635 C5	9010
1770 C12	2023 F9	2124 F10	2752 B6	2807 B10	3108 D6	3223 E8	3567 C1	5201 D5	6201 E9	6601 C1	7750 C6	9011
1771 B11	2024 F10	2125 E9	2753 B6	2811 A10	3110 D7	3224 E8	3579 A2	5202 D9	6202 E7	6603 A1	7760 B8	9012
1772 C10	2025 E9	2127 E11	2754 C5	2829 A6	3112 E9	3225 D9	3580 A2	5203 E12	6203 D9	6609 E1	7770 C11	9013
1840 C8	2027 F10	2205 E5	2756 B5	2830 A6	3120 F8	3229 E8	3581 A2	5204 D4	6306 B1	6611 A1	7800 B11	9014
1860 C7	2101 D12	2209 F6	2757 B5	2831 A6	3121 F9	3233 E7	3613 A1	5501 C2	6307 C1	6617 D1	7810 A9	9015
2001 D10	2107 D6	2211 E12	2758 B5	2833 A5	3201 D4	3234 D8	3624 B2	5502 C2	6314 D1	6619 A2	7820 A6	9016
2007 F6	2109 D7	2212 E9	2761 C7	2834 A5	3204 F7	3236 D8	3626 C4	5760 B7	6315 E1	6770 C11	7821 A5	9017
2009 F10	2110 D12	2214 E10	2762 B7	2835 B7	3206 F7	3361 E1	3627 C4	5761 A7	6406 B1	6802 A11	7830 B5	9021


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
SC1
SC2
A IN R
A IN L
A OUT R
A OUT L
CIN
AF16
AF17
AF11
7608
7521
3613
6619
3580
3579
3581
3624
9022
9027
2512
2510
9011
6611
6603
6406
9047
9057
9016
9032
2519
9067
9093
3837
7821
7820
9159
2829
2831
9104
5761
2834
2833
2830
2753
2752
2835
9161
6306
6407
3382
3482
3484
3384
9013
5501
9004
6307
5502
6510
9036
3557
7830
9098
2756
2757
2837
5822
9157
2758
5861
2754
7750
1750
2750
2751
3768
2762
2763
9109
1760
5760
9075
9074
9115
9076
6502
7531
9034
3825
9077
9184
3626
3627
7635
2860
2761
3862
3863
3864
3865
9097
1860
6601
3502
3567
9021
9169
9045
9096
3699
9107
9106
6505
9003
9008
6617
6504
6414
6314
6415
9043
9026
5204
9088
9089
1150
2107
2109
3207
9112
9179
9048
9083
3635
9082
9085
9084
9095
5201
3211
3201
9165
2205
9094
3210
3106
3108
3110
9103
3461
9010
6315
3465
9005
3361
3365
9178
9079
9172
9173
9078
9175
9176
9177
9183
3104
3004
7202
3233
6202
9168
9105
9110
3217
7203
6609
9186
9040
9039
9180
9181
9182
9087
2220
9100
1050
3006
2007
3008
9099
2209
9113
3206
3204
3222
6512
9017
9025
9086
6513
2620
9062
9007
9049
9009
9033
9015
9170
9014
7333
9051
9061
9059
9030
9038
9037
9058
9006
9012
9023
9050
9035

* ONLY FOR LP
** ONLY FOR GERMAN
*** ONLY FOR MULTIST
○ ONLY FOR NICAM
○○ ONLY FOR NICAM
○○○ ONLY FOR GERMAN

For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk

2216	D11
2219	D10
2220	F4
2510	A3
2512	A2
2519	A4
2620	G1
2750	B6
2751	B6
2752	B6
2753	B6
2754	C5
2756	B5
2757	B5
2758	B5
2761	C7
2762	B7
2763	B7
2764	B8
2769	A8
2772	C11
2776	B11
2777	C11
2779	C12
2791	B12
2803	A10
2807	B10
2811	A10
2829	A6
2830	A6
2831	A6
2833	A5
2834	A5
2835	B7
2837	B4
2860	C6
3004	E4
3006	F5
3008	F6
3011	E10
3021	E9
3104	E4
3106	D6
3108	D6
3110	D7
3112	E9
3120	F8
3121	F9
3201	D4
3204	F7
3206	F7
3207	D7
3210	D5
3211	D4
3215	E10
3216	E8
3217	E7
3218	D12
3221	D10
3222	F7
3223	E8
3224	E8
3225	D9
3229	E8
3233	E7
3234	D8
3236	D8
3361	E1
3365	E1
3382	B1
3384	C1
3461	E1
3465	E1
3482	B1
3484	B1
3502	C1
3557	B4
3567	C1
3579	A2
3580	A2
3581	A2
3613	A1
3624	B2
3626	C4
3627	C4
3635	D4
3699	D7
3768	B6
3825	C3
3837	A5
3862	C6
3863	C7
3864	C7
3865	C7
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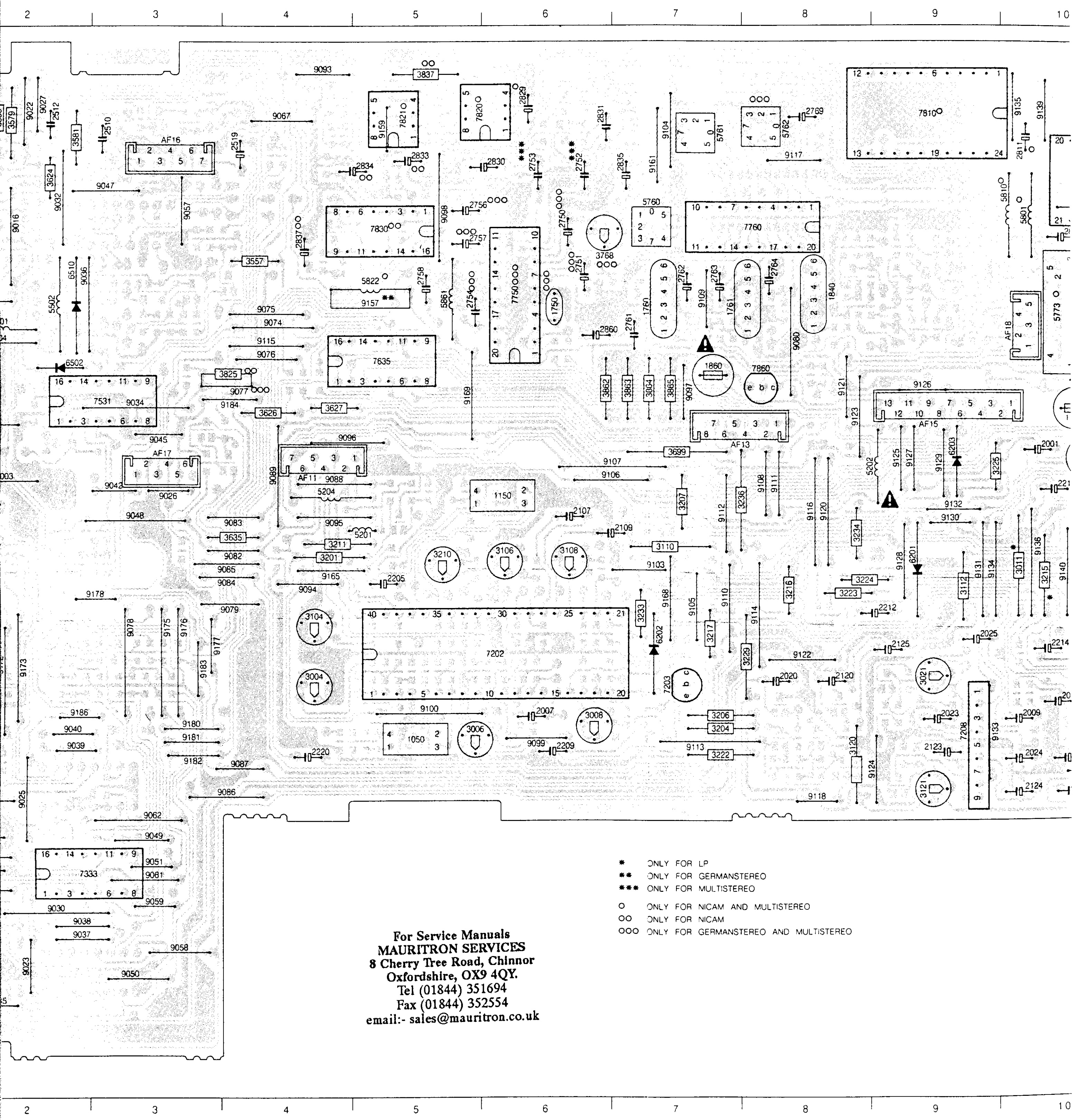
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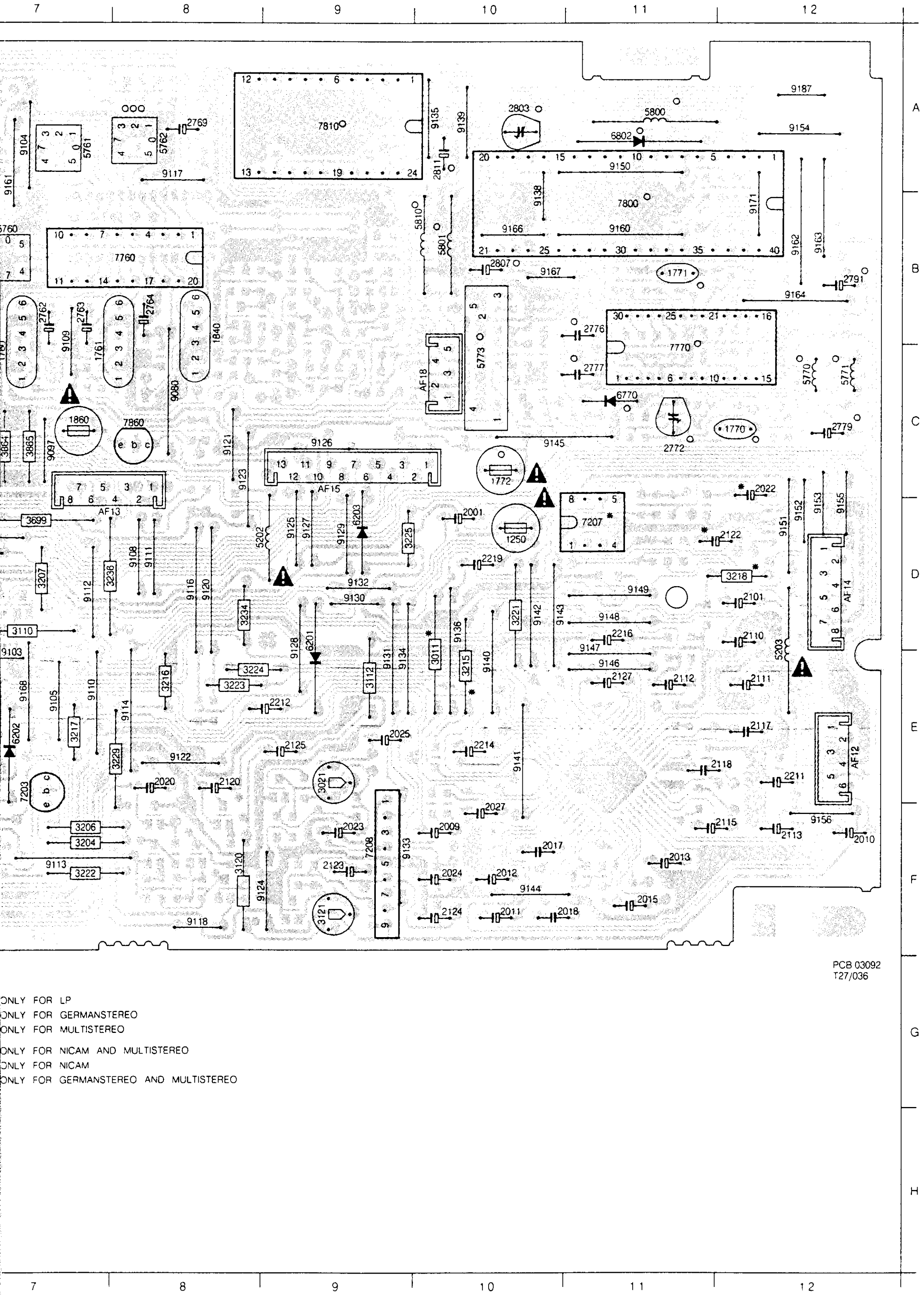
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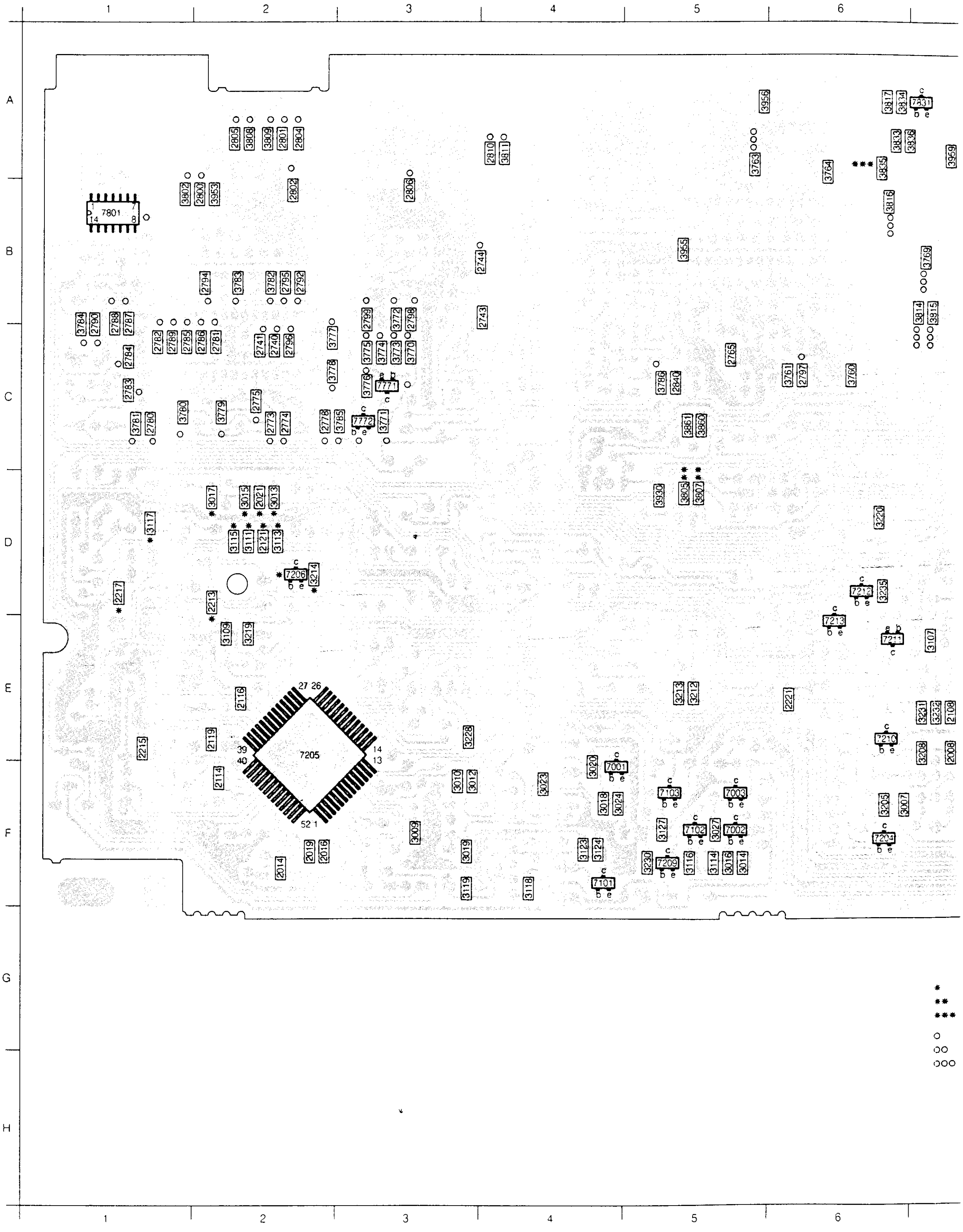
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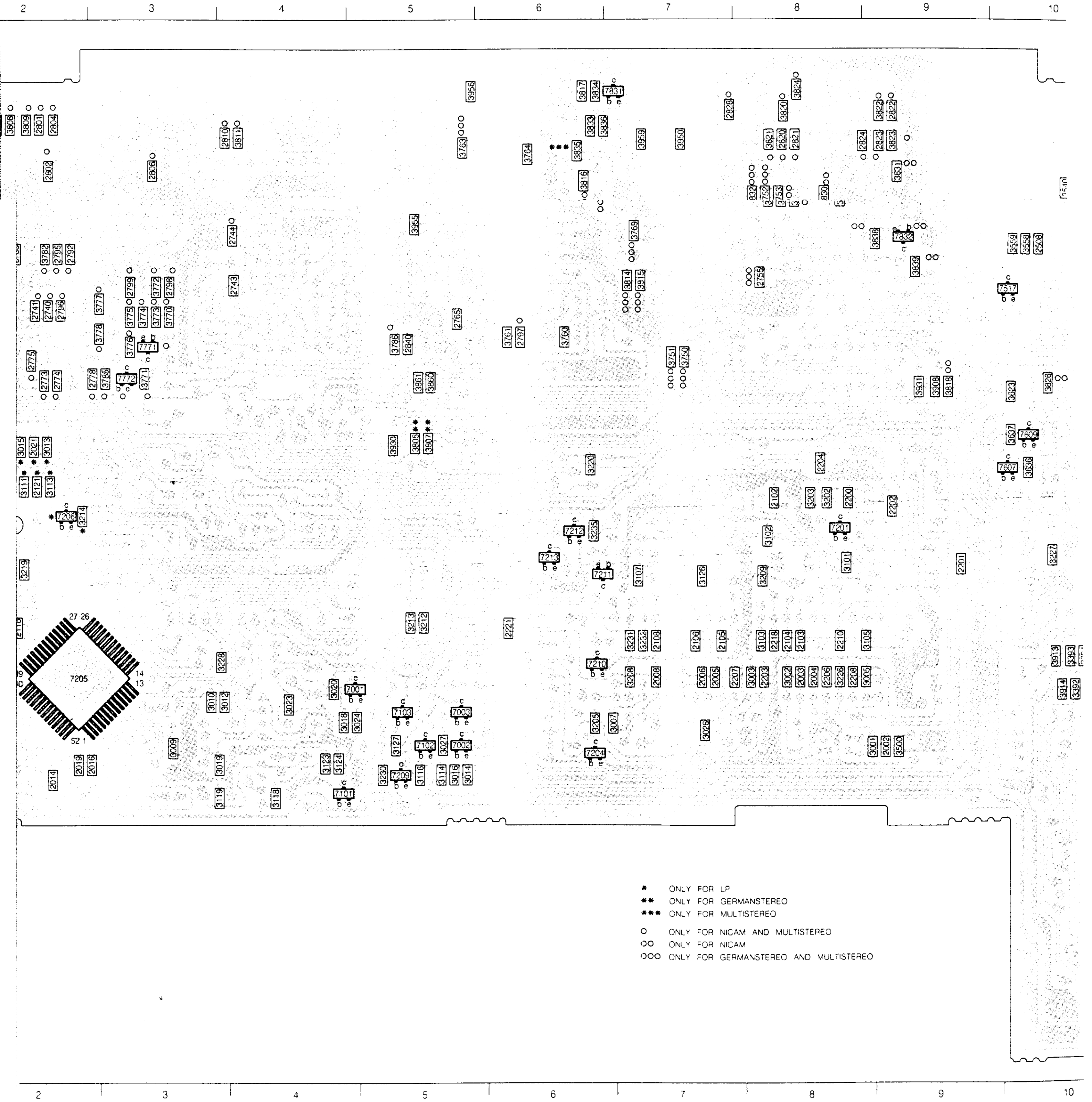

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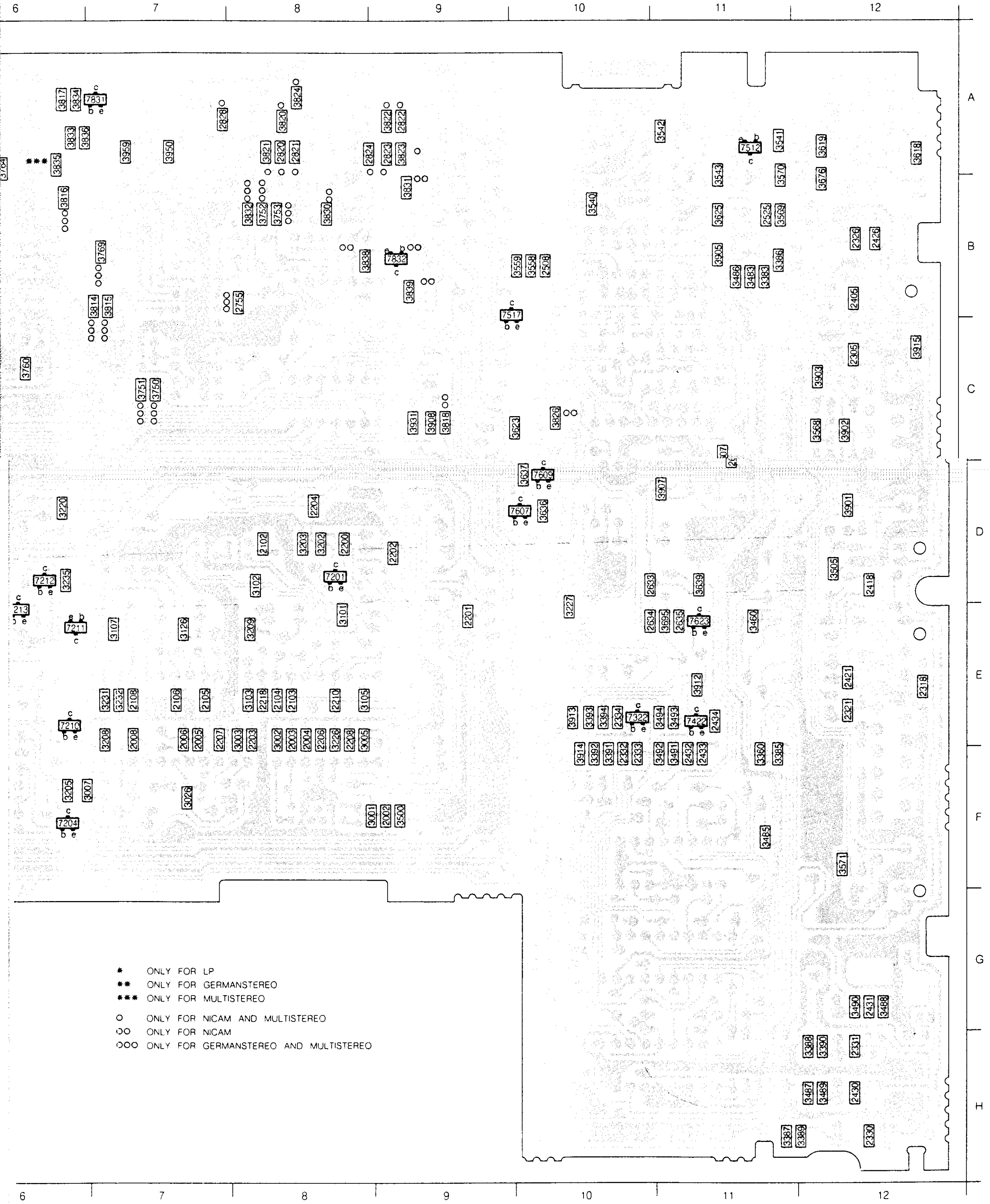
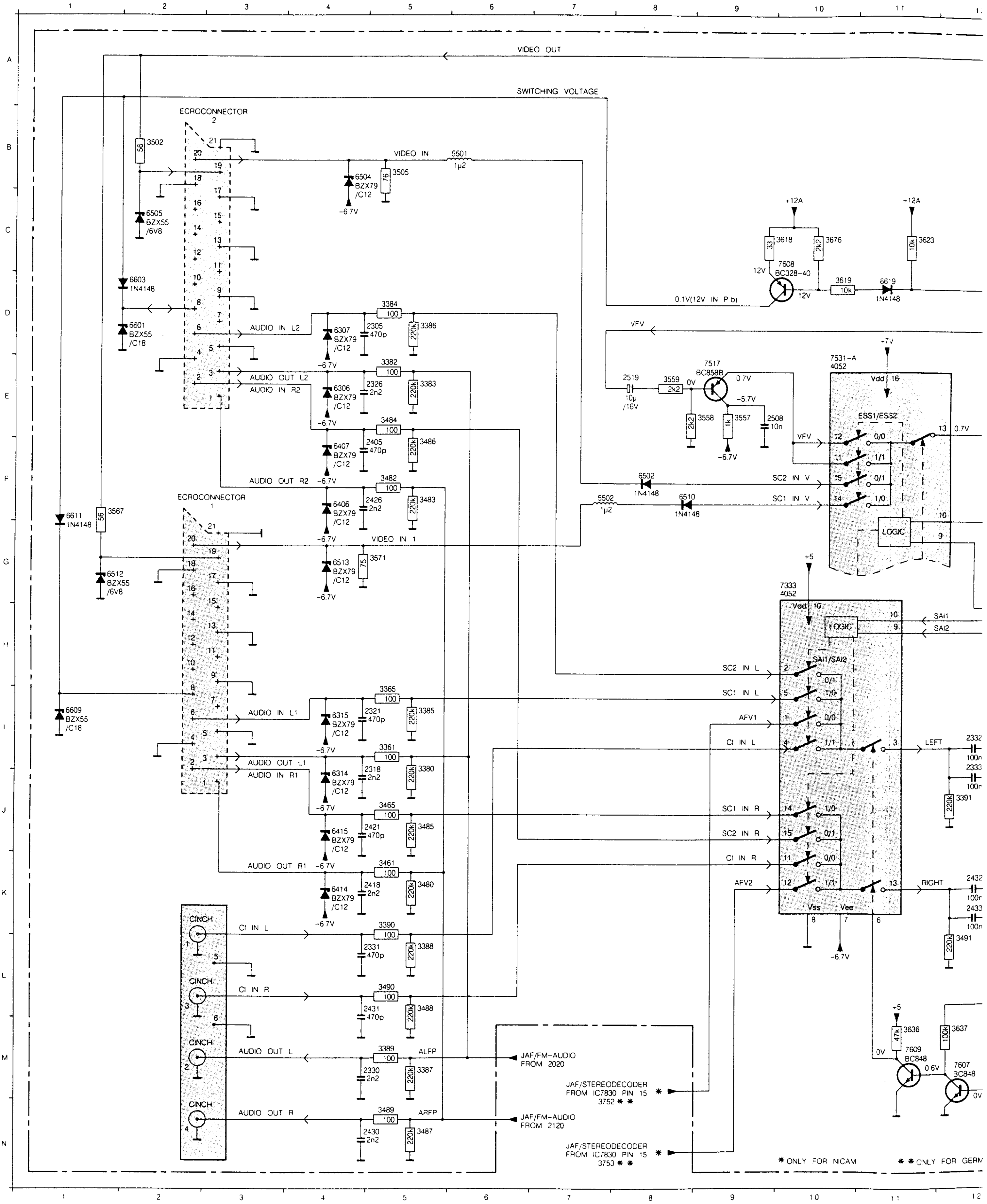
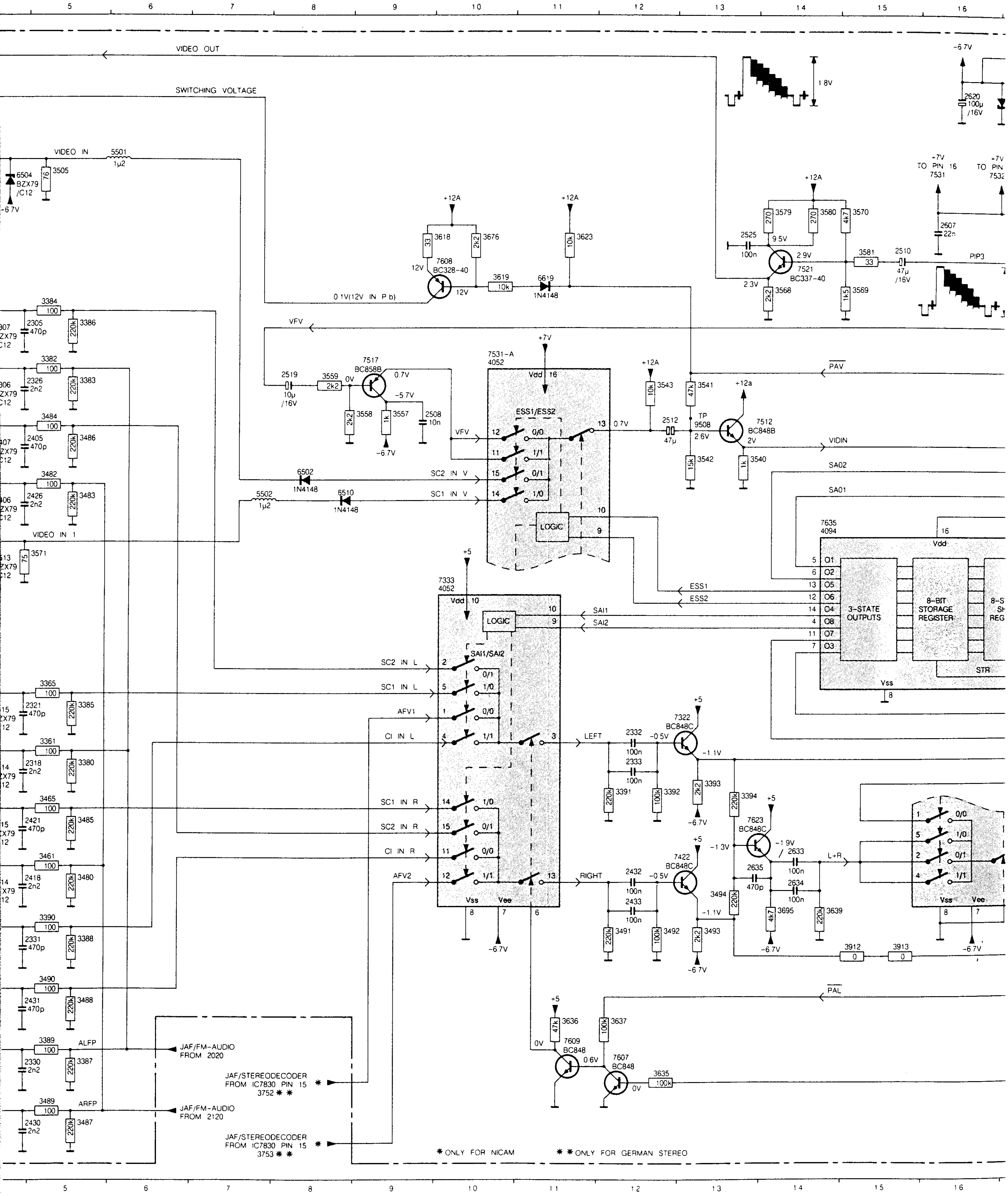
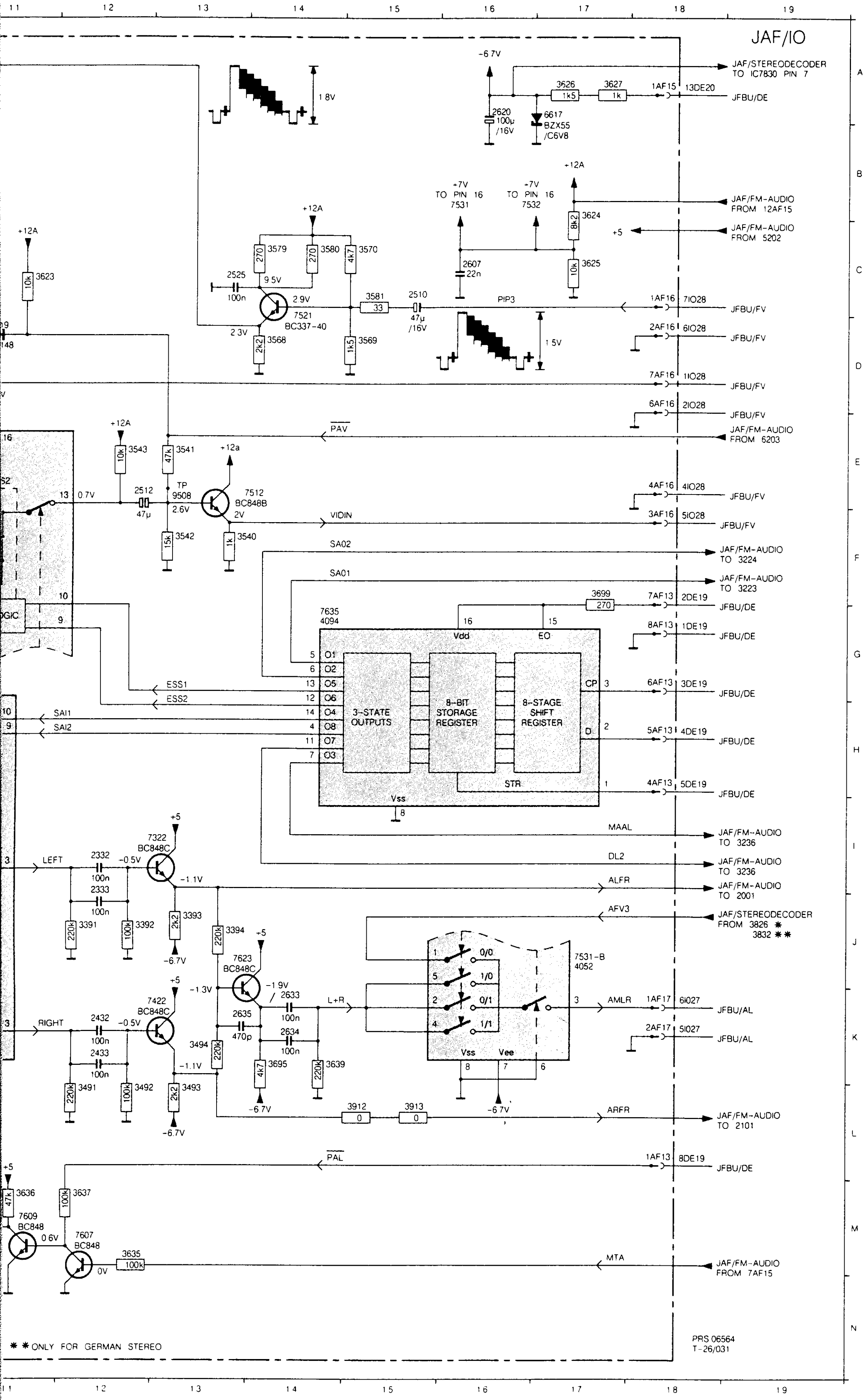


* ONLY FOR LP
** ONLY FOR GERMANSTEREO
*** ONLY FOR MULTISTEREO
○ ONLY FOR NICAM AND MULTISTEREO
○○ ONLY FOR NICAM
○○○ ONLY FOR GERMANSTEREO AND MULTISTEREO

FM audio JAF I/O


VIDEO OUT
SWITCHING VOLTAGE
ECROCONNECTOR 2
ECROCONNECTOR 1
VIDEO IN
5501 1µ2
3502 56
6505 BZX55 /6V8
6504 BZX79 /C12
3505 76
-6.7V
6603 1N4148
6601 BZX55 /C18
AUDIO IN L2
AUDIO OUT L2
AUDIO IN R2
AUDIO OUT R2
3384 100
3386 220k
6307 BZX79 /C12
2305 470p
3382 100
3383 220k
6306 BZX79 /C12
2326 2n2
3484 100
3486 220k
6407 BZX79 /C12
2405 470p
3482 100
3483 220k
6406 BZX79 /C12
2426 2n2
6611 1N4148
3567 56
6512 BZX55 /6V8
VIDEO IN 1
6513 BZX79 /C12
3571 75
6609 BZX55 /C18
AUDIO IN L1
AUDIO OUT L1
AUDIO IN R1
AUDIO OUT R1
3365 100
3385 220k
6315 BZX79 /C12
2321 470p
3361 100
3380 220k
6314 BZX79 /C12
2318 2n2
3465 100
3485 220k
6415 BZX79 /C12
2421 470p
3461 100
3480 220k
6414 BZX79 /C12
2418 2n2
CINCH
CI IN L
CI IN R
AUDIO OUT L
AUDIO OUT R
3390 100
3388 220k
2331 470p
3490 100
3488 220k
2431 470p
3389 100
3387 220k
2330 2n2
ALFP
3489 100
3487 220k
2430 2n2
ARFP
JAF/FM-AUDIO FROM 2020
JAF/FM-AUDIO FROM 2120
JAF/STEREODECODER FROM IC7830 PIN 15 * 3752 **
JAF/STEREODECODER FROM IC7830 PIN 15 * 3753 **
+12A
3618 33
3676 2k2
3623 10k
7608 BC328-40
12V
3619 10k
6619 1N4148
0.1V(12V IN P b)
VFV
2519 10µ /16V
3559 2k2
0V
7517 BC858B
0.7V
-5.7V
3558 2k2
3557 1k
2508 10n
-7V
7531-A 4052
Vdd 16
ESS1/ESS2
0/0
1/1
0/1
1/0
LOGIC
0.7V
6502 1N4148
SC2 IN V
5502 1µ2
6510 1N4148
SC1 IN V
+5
7333 4052
Vdd 10
SAI1
SAI2
SAI1/SAI2
SC2 IN L
SC1 IN L
AFV1
CI IN L
LEFT
2332 100n
2333 100n
3391 220k
SC1 IN R
SC2 IN R
CI IN R
AFV2
RIGHT
2432 100n
2433 100n
3491 220k
Vss
Vee
-6.7V
3636 47k
3637 100k
7609 BC848
0.6V
7607 BC848
*ONLY FOR NICAM
** ONLY FOR GERM
1 2 3 4 5 6 7 8 9 10 11 12
A B C D E F G H I J K L M N

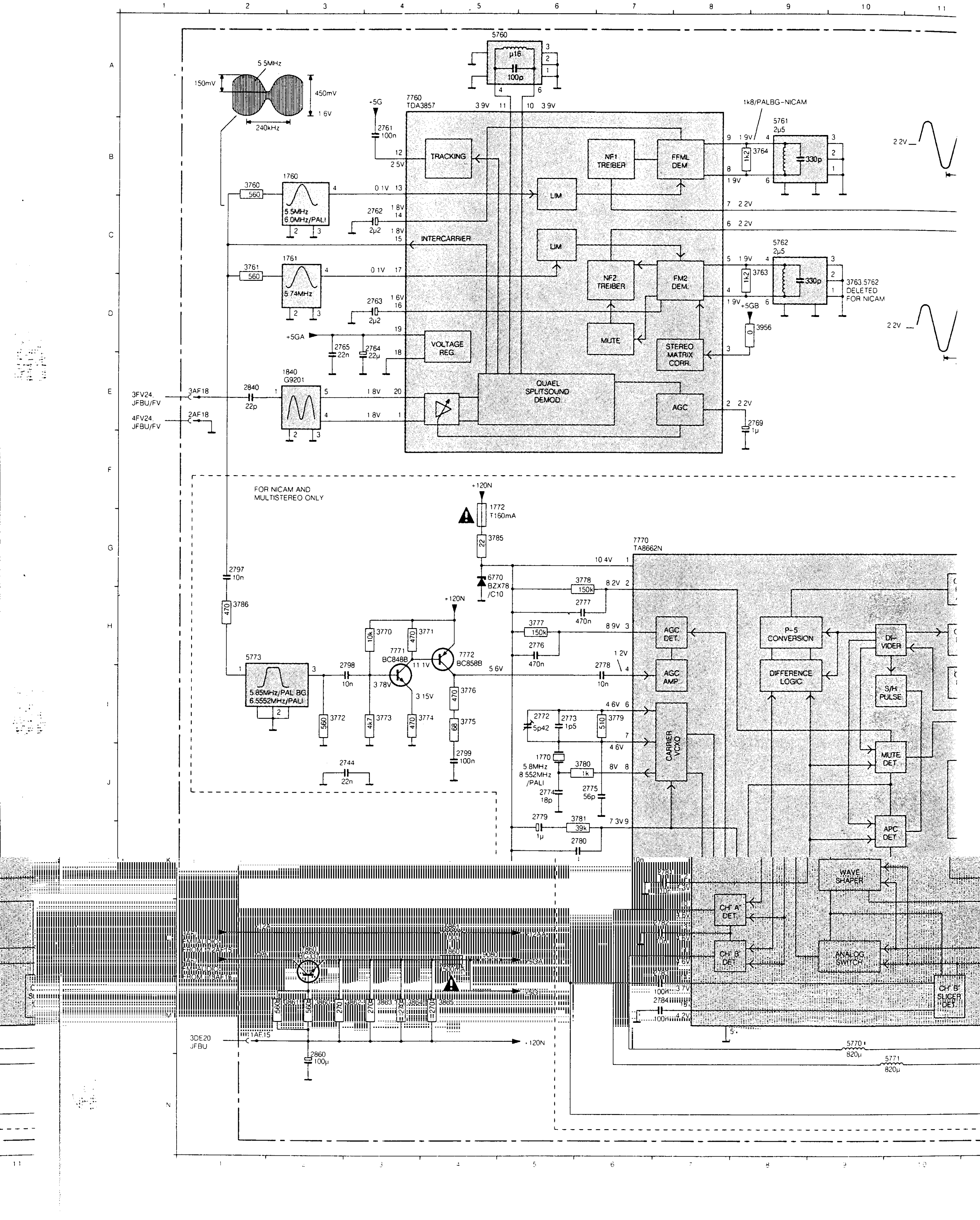

VIDEO OUT
SWITCHING VOLTAGE
VIDEO IN
5501 1μ2
3505 75
6504 BZX79 /C12
-6.7V
1.8V
-6.7V
2620 100μ /16V
+7V TO PIN 16 7531
+7V TO PIN 7532
+12A
2607 22n
+12A
3618 33
3676 2k2
7608 BC328-40
12V
3619 10k
6619 1N4148
3623 10k
0.1V(12V IN P b)
3579 270
3580 270
3570 4k7
2525 100n
9.5V
7521 BC337-40
2.9V
2.3V
3568 2k2
3581 33
2510 47μ /16V
3569 1k5
PIP3
3384 100
2305 470p
3386 220k
VFV
+7V
7531-A 4052
Vdd 16
ESS1/ESS2
0/0
1/1
0/1
1/0
13 0.7V
LOGIC
10
9
2519 10μ /16V
3559 2k2
0V
7517 BC858B
0.7V
-5.7V
3558 2k2
3557 1k
2508 10n
-6.7V
VFV
SC2 IN V
SC1 IN V
6502 1N4148
6510 1N4148
5502 1μ2
VIDEO IN 1
3571 75
3382 100
2326 2n2
3383 220k
3484 100
2405 470p
3486 220k
3482 100
2426 2n2
3483 220k
+12A
3543 10k
3541 47k
+12a
2512 47μ
TP 9508
2.6V
7512 BC848B
2V
VIDIN
3542 15k
3540 1k
PAV
SA02
SA01
7635 4094
16
Vdd
3-STATE OUTPUTS
8-BIT STORAGE REGISTER
8-S SH REG
STR
Vss
8
O1 O2 O5 O6 O4 O8 O7 O3
ESS1
ESS2
SAI1
SAI2
+5
7333 4052
Vdd 10
LOGIC
SAI1/SAI2
SC2 IN L
SC1 IN L
AFV1
CI IN L
SC1 IN R
SC2 IN R
CI IN R
AFV2
Vss Vee
8 7 6
-6.7V
LEFT
RIGHT
2332 100n
2333 100n
-0.5V
7322 BC848C
-1.1V
3391 220k
3392 100k
3393 2k2
3394 220k
7623 BC848C
-1.3V
-1.9V
2633 100n
L+R
2635 470p
2634 100n
3695 4k7
3639 220k
2432 100n
2433 100n
7422 BC848C
3494 220k
3491 220k
3492 100k
3493 2k2
3912 0
3913 0
3365 100
2321 470p
3385 220k
3361 100
2318 2n2
3380 220k
3465 100
2421 470p
3485 220k
3461 100
2418 2n2
3480 220k
3390 100
2331 470p
3388 220k
3490 100
2431 470p
3488 220k
3389 100
ALFP
2330 2n2
3387 220k
3489 100
ARFP
2430 2n2
3487 220k
JAF/FM-AUDIO FROM 2020
JAF/STEREODECODER FROM IC7830 PIN 15 3752 ✱✱
JAF/FM-AUDIO FROM 2120
JAF/STEREODECODER FROM IC7830 PIN 15 3753 ✱✱
PAL
3636 47k
3637 100k
7609 BC848
0.6V
7607 BC848
3635 100k
0V
✱ ONLY FOR NICAM
✱✱ ONLY FOR GERMAN STEREO
5 6 7 8 9 10 11 12 13 14 15 16


JAF/IO
11
12
13
14
15
16
17
18
19
A
B
C
D
E
F
G
H
I
J
K
L
M
N
-6.7V
JAF/STEREODECODER TO IC7830 PIN 7
3626 1k5
3627 1k
1AF15
13DE20
JFBU/DE
2620 100µ /16V
6617 BZX55 /C6V8
1.8V
+12A
+7V TO PIN 16 7531
+7V TO PIN 16 7532
3624 8k2
JAF/FM-AUDIO FROM 12AF15
+5
JAF/FM-AUDIO FROM 5202
2607 22n
3625 10k
3579 270
3580 270
3570 4k7
2525 100n
9.5V
2.9V
7521 BC337-40
2.3V
3568 2k2
3569 1k5
3581 33
2510 47µ /16V
PIP3
1.5V
1AF16 7IO28 JFBU/FV
2AF16 6IO28 JFBU/FV
7AF16 1IO28 JFBU/FV
6AF16 2IO28 JFBU/FV
PAV
JAF/FM-AUDIO FROM 6203
3623 10k
3543 10k
3541 47k
+12a
7512 BC848B
13
0.7V
2512 47µ
TP 9508
2.6V
2V
3542 15k
3540 1k
VIDIN
4AF16 4IO28 JFBU/FV
3AF16 5IO28 JFBU/FV
SA02
JAF/FM-AUDIO TO 3224
SA01
JAF/FM-AUDIO TO 3223
3699 270
7AF13 2DE19 JFBU/DE
8AF13 1DE19 JFBU/DE
10
9
GIC
7635 4094
16 Vdd
15 EO
O1 O2 O5 O6 O4 O8 O7 O3
3-STATE OUTPUTS
8-BIT STORAGE REGISTER
8-STAGE SHIFT REGISTER
CP 3
D 2
STR 1
Vss 8
ESS1
ESS2
SAI1
SAI2
6AF13 3DE19 JFBU/DE
5AF13 4DE19 JFBU/DE
4AF13 5DE19 JFBU/DE
MAAL
JAF/FM-AUDIO TO 3236
DL2
JAF/FM-AUDIO TO 3236
ALFR
JAF/FM-AUDIO TO 2001
AFV3
JAF/STEREODECODER FROM 3826 ✱ 3832 ✱✱
+5
7322 BC848C
LEFT
2332 100n
2333 100n
-0.5V
-1.1V
3391 220k
3392 100k
3393 2k2
3394 220k
-6.7V
7623 BC848C
-1.3V
-1.9V
2633 100n
2635 470p
2634 100n
L+R
7531-B 4052
0/0 1/0 0/1 1/1
Vss Vee
AMLR
1AF17 6IO27 JFBU/AL
2AF17 5IO27 JFBU/AL
7422 BC848C
RIGHT
2432 100n
2433 100n
3491 220k
3492 100k
3493 2k2
3494 220k
3695 4k7
3639 220k
3912 0
3913 0
ARFR
JAF/FM-AUDIO TO 2101
PAL
1AF13 8DE19 JFBU/DE
3636 47k
3637 100k
7609 BC848
0.6V
7607 BC848
3635 100k
0V
MTA
JAF/FM-AUDIO FROM 7AF15
✱✱ONLY FOR GERMAN STEREO
PRS 06564
T-26/031

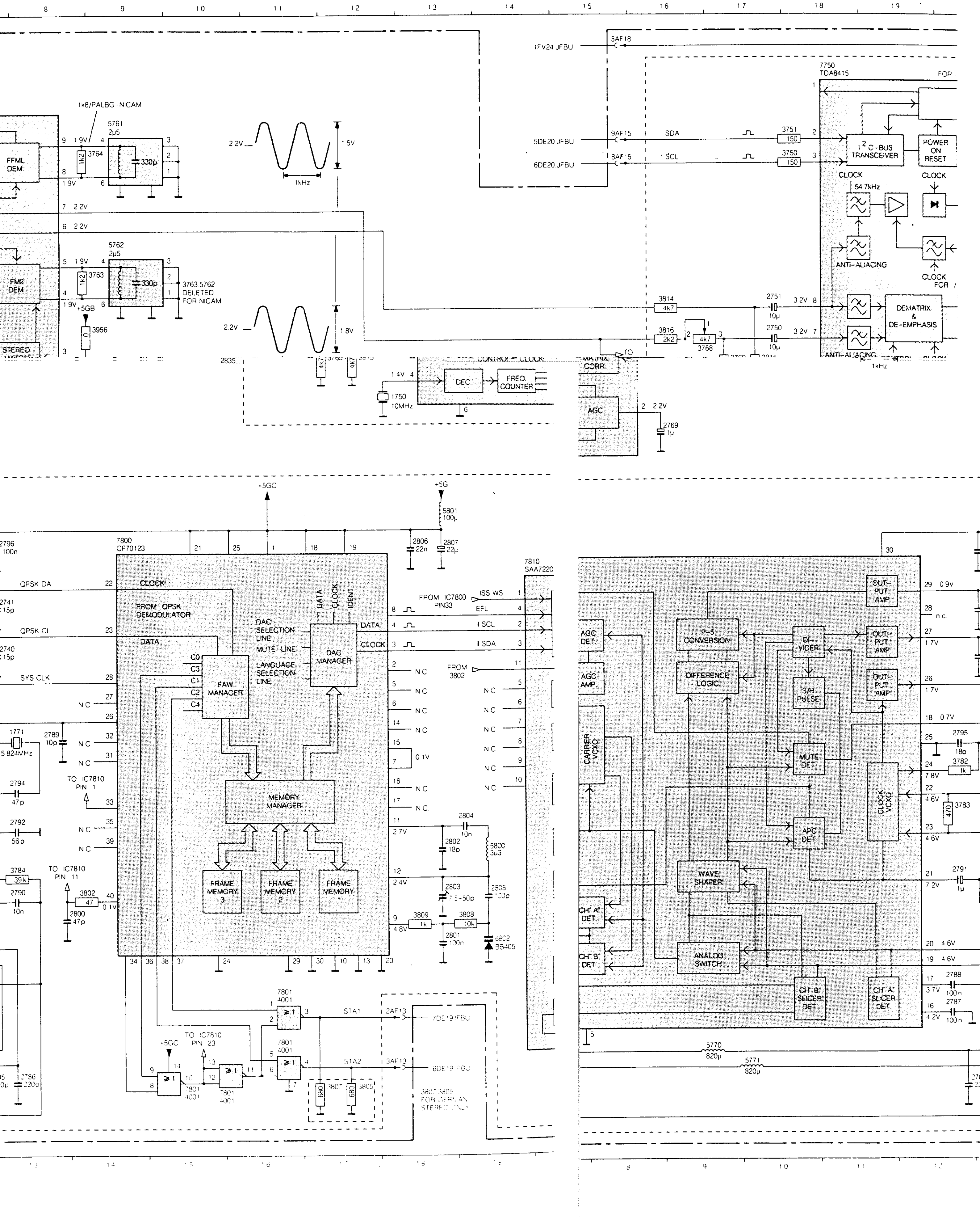
2305	D4
2318	J4
2321	I4
2326	E4
2330	M4
2331	L4
2332	I12
2333	J12
2405	F4
2418	K4
2421	J4
2426	F4
2430	N4
2431	L4
2432	K12
2433	K12
2508	E9
2510	C15
2512	E12
2519	E8
2525	C13
2607	C16
2620	A16
2633	K14
2634	K14
2635	K13
3361	I5
3365	I5
3380	J5
3382	E5
3383	E5
3384	D5
3385	I5
3386	D5
3387	M5
3388	L5
3389	M5
3390	K5
3391	J12
3392	J12
3393	J13
3394	J13
3461	K5
3465	J5
3480	K5
3482	F5
3483	F5
3484	E5
3485	J5
3486	F5
3487	N5
3488	L5
3489	N5
3490	L5
3491	L12
3492	L12
3493	L13
3494	K13
3502	B2
3505	B5
3540	F13
3541	E13
3542	F13
3543	E12
3557	E9
3558	E9
3559	E8
3567	F1
3568	D14
3569	D15
3570	C15
3571	G5
3579	C14
3580	C14
3581	C15
3618	C9
3619	D10
3623	C11
3624	B17
3625	C17
3626	A17
3627	A17
3635	M12
3636	M11
3637	M12
3639	K14
3676	C10
3695	K14
3699	F17
3912	L15
3913	L15
5501	B6
5502	F7
6306	E4
6307	D4
6314	J4
6315	I4
6406	F4
6407	F4
6414	K4
6415	J4
6502	F8
6504	B4
6505	C2
6510	F8
6512	G1
6513	G4
6601	D2
6603	D2
6609	I1
6611	F1
6617	A17
6619	D11
7322	I13
7333	G10
7422	K13
7512	E14
7517	E9
7521	D14
7531	E10
7531	J17
7607	M12
7608	C10
7609	M11
7623	J13
7635	G14

FM audio JAF/Stereodecoder

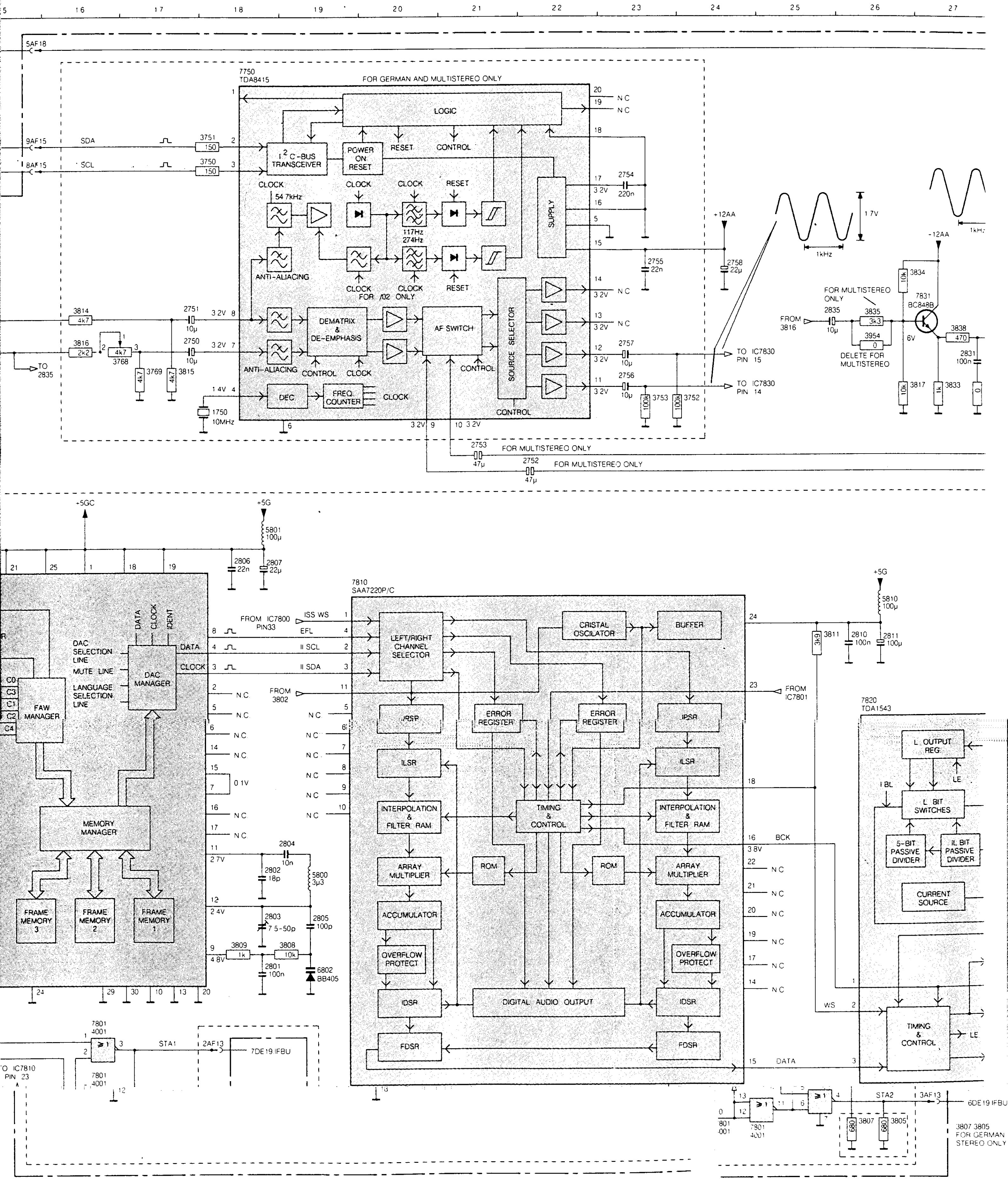
1750	E18	1772	G5	2744	J3	2754	B23	2761	B4	2769	E8	2776	H6	2781	K7	2786	N13	2791	K12	2797	G2	2802	K18	2807	G18
1760	B2	1840	E2	2750	D17	2755	C23	2762	C4	2772	I6	2777	H6	2784	M7	2787	M12	2792	K13	2798	I3	2803	K18	2810	H26
1761	C2	1860	L4	2751	D17	2756	E23	2763	D4	2773	I6	2778	I7	2782	L7	2788	L12	2794	J13	2799	J5	2804	J19	2811	H26
1770	J6	2740	H13	2752	F22	2757	D23	2764	D4	2774	J6	2779	J6	2783	L7	2789	I13	2795	I12	2800	L13	2805	K19	2820	I31
1771	I13	2741	H13	2753	F21	2758	C24	2765	D3	2775	J7	2780	K6	2785	N12	2790	K13	2796	G13	2801	L18	2806	G18	2821	J31


1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
N
5760
μ16
100p
5.5MHz
150mV
450mV
1.6V
240kHz
-5G
2761
100n
7760
TDA3857
3.9V
TRACKING
NF1 TREIBER
FFML DEM
LIM
INTERCARRIER
NF2 TREIBER
FM2 DEM.
MUTE
VOLTAGE REG.
STEREO MATRIX CORR.
QUAEL SPLITSOUND DEMOD
AGC
1k8/PALBG-NICAM
5761
2μ5
3764
330p
2.2V
5762
2μ5
3763
3763.5762 DELETED FOR NICAM
+5GB
3956
3760
560
1760
5.5MHz 6.0MHz/PALI
2762
2μ2
3761
1761
5.74MHz
2763
+5GA
2765
22n
2764
22μ
1840
G9201
2840
22p
3FV24. JFBU/FV
3AF18
4FV24. JFBU/FV
2AF18
2769
1μ
FOR NICAM AND MULTISTEREO ONLY
+120N
1772
T160mA
3785
22
6770
BZX78 /C10
7770
TA8662N
3778
150k
2777
470n
3777
150k
2776
470n
2778
10n
AGC DET.
AGC AMP
P-S CONVERSION
DIFFERENCE LOGIC
DI-VIDER
S/H PULSE
MUTE DET
APC DET
CARRIER VCXO
2797
10n
3786
470
5773
5.85MHz/PAL BG 6.5552MHz/PALI
2798
10n
3770
10k
3771
470
7771
BC848B
7772
BC858B
3776
3775
68
2799
100n
3772
560
3773
4k7
3774
2744
22n
2772
5p42
2773
1p5
3779
510
1770
5.8MHz 8.552MHz /PALI
3780
1k
2774
18p
2775
56p
2779
1μ
3781
39k
2780
WAVE SHAPER
CH A DET
CH B DET
ANALOG SWITCH
CH B SLICER DET
7860
BC337
3861
3860
3862
3863
3864
3865
T500mA
1AF15
3DE20 JFBU
2860
100μ
+120N
5770
820μ
5771
820μ

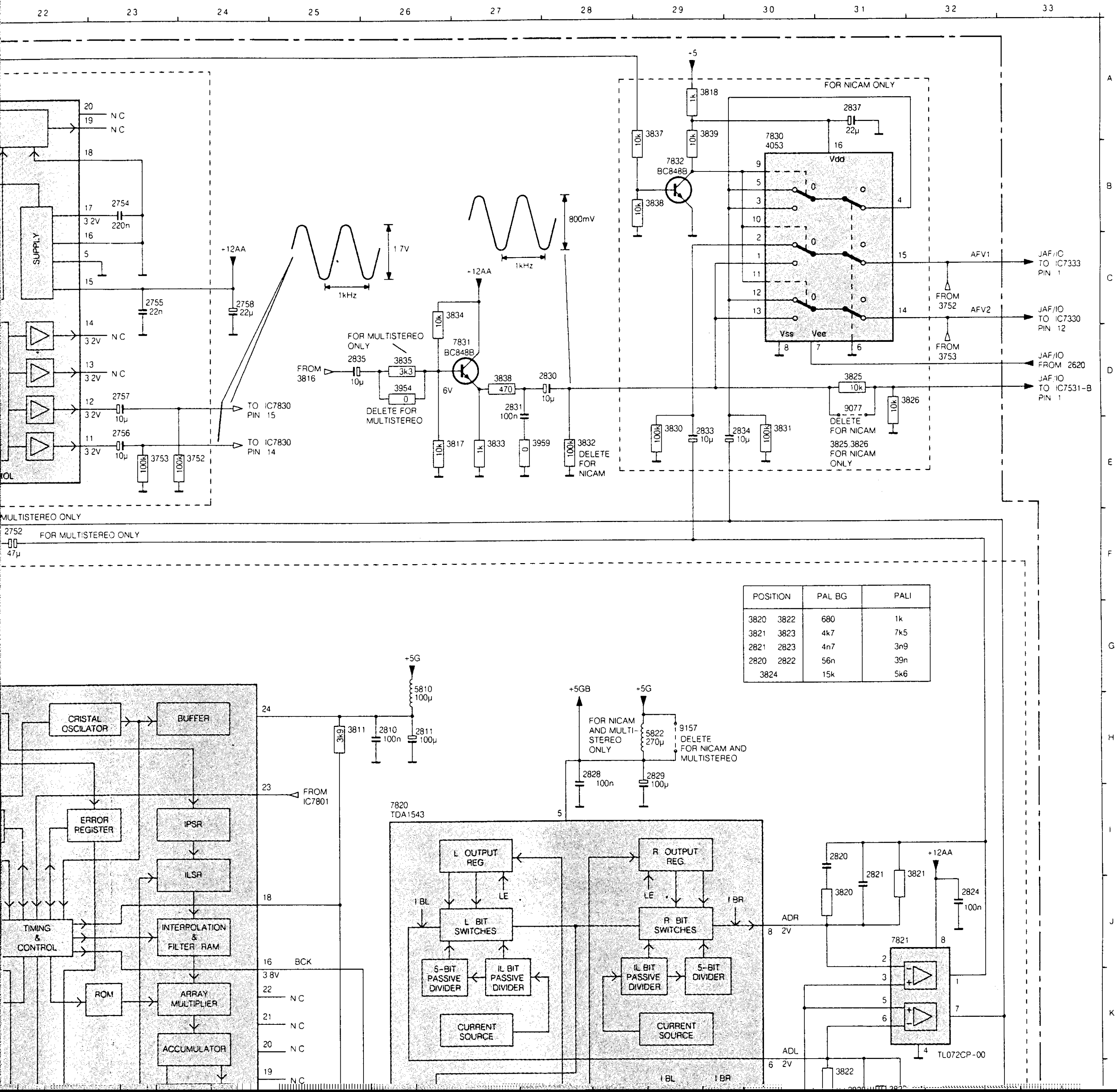
	N13	2791	K12	2797	G2	2802	K18	2807	G18	2822	L31	2830	D28	2837	A31	3752	E24	3764	B9	3772	I3	3777	H6	3782	J12	3802	K14	3811	H25	3
	M12	2792	K13	2798	I3	2803	K18	2810	H26	2823	L31	2831	D27	2840	E2	3753	E23	3768	D17	3773	I4	3778	G6	3783	J12	3805	N17	3814	D16	3
	L12	2794	J13	2799	J5	2804	J19	2811	H26	2824	J32	2833	E29	2860	N2	3760	B2	3769	E17	3774	I4	3779	I7	3784	K13	3807	N17	3815	E17	3
	I13	2795	I12	2800	L13	2805	K19	2820	I31	2828	H28	2834	E30	3750	B18	3761	C2	3770	H4	3775	I5	3780	J6	3785	G5	3808	L19	3816	D16	3
	K13	2796	G13	2801	L18	2806	G18	2821	J31	2829	H29	2835	D25	3751	B18	3763	D9	3771	H4	3776	I5	3781	J6	3786	H2	3809	L18	3817	E26	3


8
9
10
11
12
13
14
15
16
17
18
19
1k8/PALBG-NICAM
5761
2μ5
FFML DEM.
1k2
3764
330p
1.9V
2.2V
7 2.2V
6 2.2V
1.5V
1kHz
5762
2μ5
FM2 DEM.
3763
3763.5762 DELETED FOR NICAM
+5GB
3956
STEREO
1.8V
1FV24 JFBU
5AF18
5DE20 JFBU
6DE20 JFBU
9AF15
8AF15
SDA
SCL
3751
150
3750
150
7750
TDA8415
I²C-BUS TRANSCEIVER
POWER ON RESET
CLOCK
54.7kHz
ANTI-ALIACING
CLOCK FOR
3814
4k7
3816
2k2
3768
4k7
2751
10μ
2750
10μ
3.2V
DEMATRIX & DE-EMPHASIS
ANTI-ALIACING
1kHz
2835
CONTROL CLOCK
MATRIX CORR.
TO
1.4V
DEC.
FREQ. COUNTER
1750
10MHz
AGC
2.2V
2769
1μ
+5GC
+5G
5801
100μ
2806
22n
2807
22μ
7800
CF70123
2796
100n
QPSK DA
CLOCK
FROM QPSK DEMODULATOR
DATA
2741
15p
QPSK CL
2740
15p
SYS CLK
N.C
1771
5.824MHz
2789
10p
2794
47p
2792
56p
TO IC7810 PIN 1
3784
39k
2790
10n
TO IC7810 PIN 11
3802
47
2800
47p
0.1V
C0
C3
C1
C2
C4
FAW MANAGER
DAC SELECTION LINE
MUTE LINE
LANGUAGE SELECTION LINE
DATA
CLOCK
IDENT.
DAC MANAGER
MEMORY MANAGER
FRAME MEMORY 3
FRAME MEMORY 2
FRAME MEMORY 1
7810
SAA7220
FROM IC7800 PIN33
ISS WS
EFL
II SCL
II SDA
FROM 3802
0.1V
2804
10n
2802
18p
5800
3μ3
2.7V
2.4V
2803
7.5-50p
2805
100p
4.8V
3809
1k
3808
10k
2801
100n
6802
BB405
7801
4001
STA1
2AF13
7DE19 FBU
STA2
3AF13
6DE19 FBU
TO IC7810 PIN 23
3807
3805
680
3807.3805 FOR GERMAN STEREO ONLY
2786
220p
AGC DET.
AGC AMP.
CARRIER VCXO
CH"A" DET.
CH"B" DET.
P-S CONVERSION
DIFFERENCE LOGIC
DI-VIDER
S/H PULSE
MUTE DET
APC DET
WAVE SHAPER
ANALOG SWITCH
CH"B" SLICER DET
CH"A" SLICER DET
OUT-PUT AMP
CLOCK VCXO
0.9V
n.c.
1.7V
0.7V
2795
18p
3782
1k
7.8V
4.6V
3783
470
7.2V
2791
1μ
3.7V
2788
100n
4.2V
2787
100n
5770
820μ
5771
820μ

B9	3772 I3	3777 H6	3782 J12	3802 K14	3811 H25	3818 A29	3824 M30	3832 E28	3838 B29	3862 M3	3956 D9	5770 M9	5810 G26	7750 A18	78
D17	3773 I4	3778 G6	3783 J12	3805 N17	3814 D16	3820 J31	3825 D31	3833 E27	3838 D27	3863 M3	3959 E27	5771 N10	5822 H29	7760 A4	78
E17	3774 I4	3779 I7	3784 K13	3807 N17	3815 E17	3821 J31	3826 D31	3834 C26	3839 A29	3864 M3	5760 A5	5773 H2	5861 L4	7770 G7	78
H4	3775 I5	3780 J6	3785 G5	3808 L19	3816 D16	3822 L31	3830 E29	3835 D26	3860 M2	3865 M4	5761 B9	5800 K19	6770 G5	7771 H4	78
H4	3776 I5	3781 J6	3786 H2	3809 L18	3817 E26	3823 L31	3831 E30	3837 A29	3861 M2	3954 D26	5762 C9	5801 G18	6802 L19	7772 H5	78

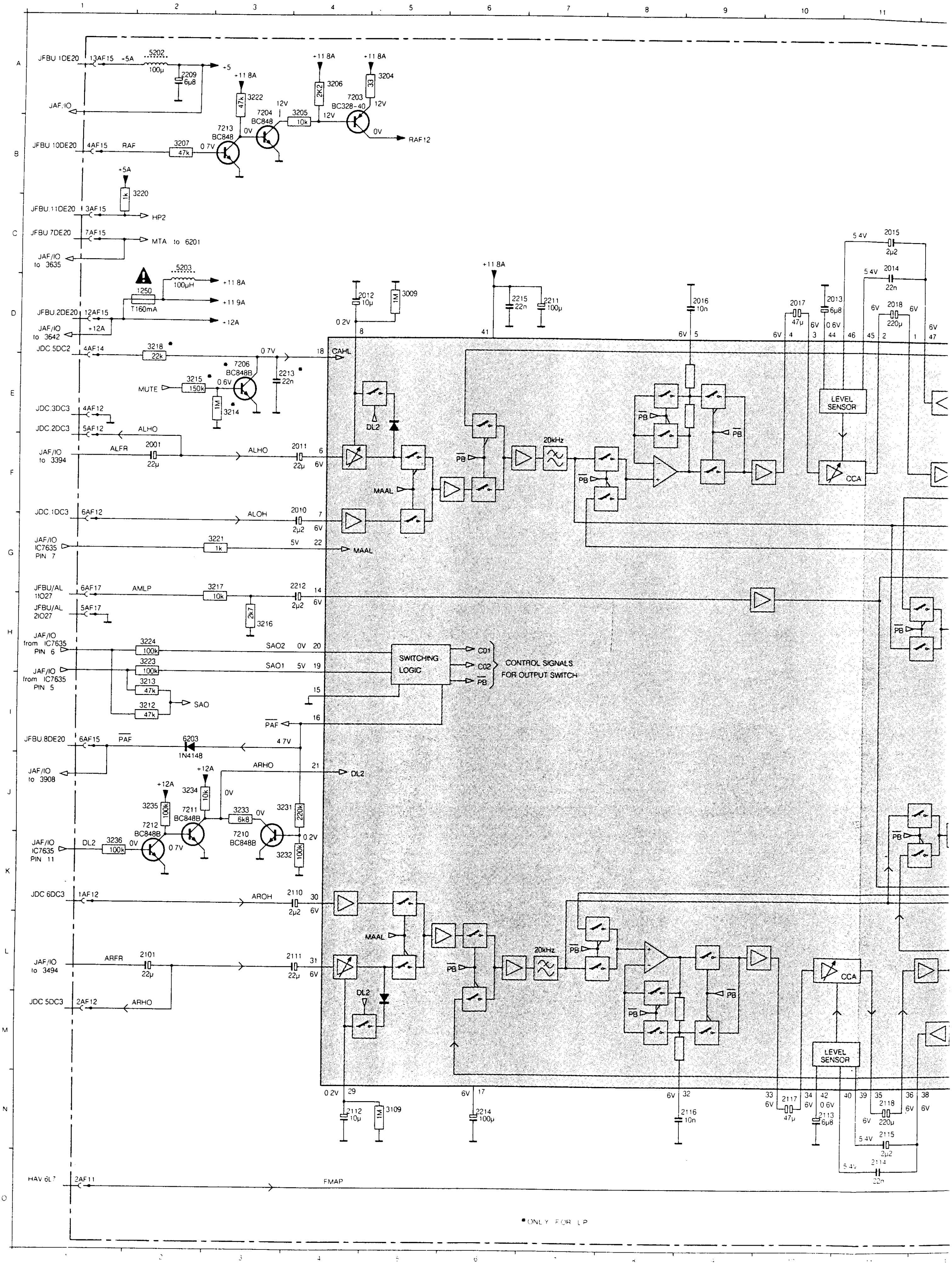

5
16
17
18
19
20
21
22
23
24
25
26
27
5AF18
9AF15
SDA
8AF15
SCL
3751
150
3750
150
7750
TDA8415
FOR GERMAN AND MULTISTEREO ONLY
LOGIC
I²C-BUS TRANSCEIVER
POWER ON RESET
RESET
CONTROL
CLOCK
54.7kHz
117Hz
274Hz
ANTI-ALIACING
CLOCK FOR /02 ONLY
DEMATRIX & DE-EMPHASIS
AF SWITCH
SOURCE SELECTOR
SUPPLY
DEC
FREQ. COUNTER
CLOCK
NC
2754
220n
2755
22n
2758
22μ
+12AA
3814
4k7
2751
10μ
3.2V
3816
2k2
4k7
3768
3769
3815
2750
TO 2835
1.4V
1750
10MHz
2757
2756
10μ
TO IC7830 PIN 15
TO IC7830 PIN 14
100k
3753
3752
2753
47μ
FOR MULTISTEREO ONLY
2752
1.7V
1kHz
-12AA
3834
10k
7831
BC848B
FOR MULTISTEREO ONLY
FROM 3816
2835
3835
3k3
3954
0
DELETE FOR MULTISTEREO
6V
3838
470
2831
100n
3817
1k
3833
+5GC
+5G
5801
100μ
2806
22n
2807
22μ
DATA
CLOCK
IDENT
DAC SELECTION LINE
MUTE LINE
LANGUAGE SELECTION LINE
DAC MANAGER
FAW MANAGER
MEMORY MANAGER
FRAME MEMORY 3
FRAME MEMORY 2
FRAME MEMORY 1
C0
C3
C1
C2
C4
0.1V
2.7V
2.4V
4.8V
2804
10n
2802
18p
5800
3μ3
2803
7.5-50p
2805
100p
3809
1k
3808
10k
2801
100n
6802
BB405
FROM IC7800 PIN33
ISS WS
EFL
II SCL
II SDA
FROM 3802
7810
SAA7220P/C
LEFT/RIGHT CHANNEL SELECTOR
CRISTAL OSCILATOR
BUFFER
IPSR
ERROR REGISTER
ILSR
INTERPOLATION & FILTER RAM
TIMING & CONTROL
ARRAY MULTIPLIER
ROM
ACCUMULATOR
OVERFLOW PROTECT
IDSR
DIGITAL AUDIO OUTPUT
FDSR
FROM IC7801
BCK
3.8V
DATA
WS
+5G
5810
100μ
3811
3k9
2810
100n
2811
100μ
7820
TDA1543
L OUTPUT REG.
IBL
LE
L BIT SWITCHES
5-BIT PASSIVE DIVIDER
IL BIT PASSIVE DIVIDER
CURRENT SOURCE
TIMING & CONTROL
7801
4001
STA1
2AF13
7DE19 IFBU
TO IC7810 PIN 23
STA2
3AF13
6DE19 IFBU
3807
3805
680
3807 3805 FOR GERMAN STEREO ONLY
19
20
21
22
23
24
25
26
27
5
16
17
18

32	E28
33	E27
34	C26
35	D26
37	A29
3838	B29
3838	D27
3839	A29
3860	M2
3861	M2
3862	M3
3863	M3
3864	M3
3865	M4
3954	D26
3956	D9
3959	E27
5760	A5
5761	B9
5762	C9
5770	M9
5771	N10
5773	H2
5800	K19
5801	G18
5810	G26
5822	H29
5861	L4
6770	G5
6802	L19
7750	A18
7760	A4
7770	G7
7771	H4
7772	H5
7800	G14
7801	N15
7810	G19
7820	I26
7821	J32
7830	A30
7831	D27
7832	B29
7860	L2
9077	D31
9080	L4
9157	H29

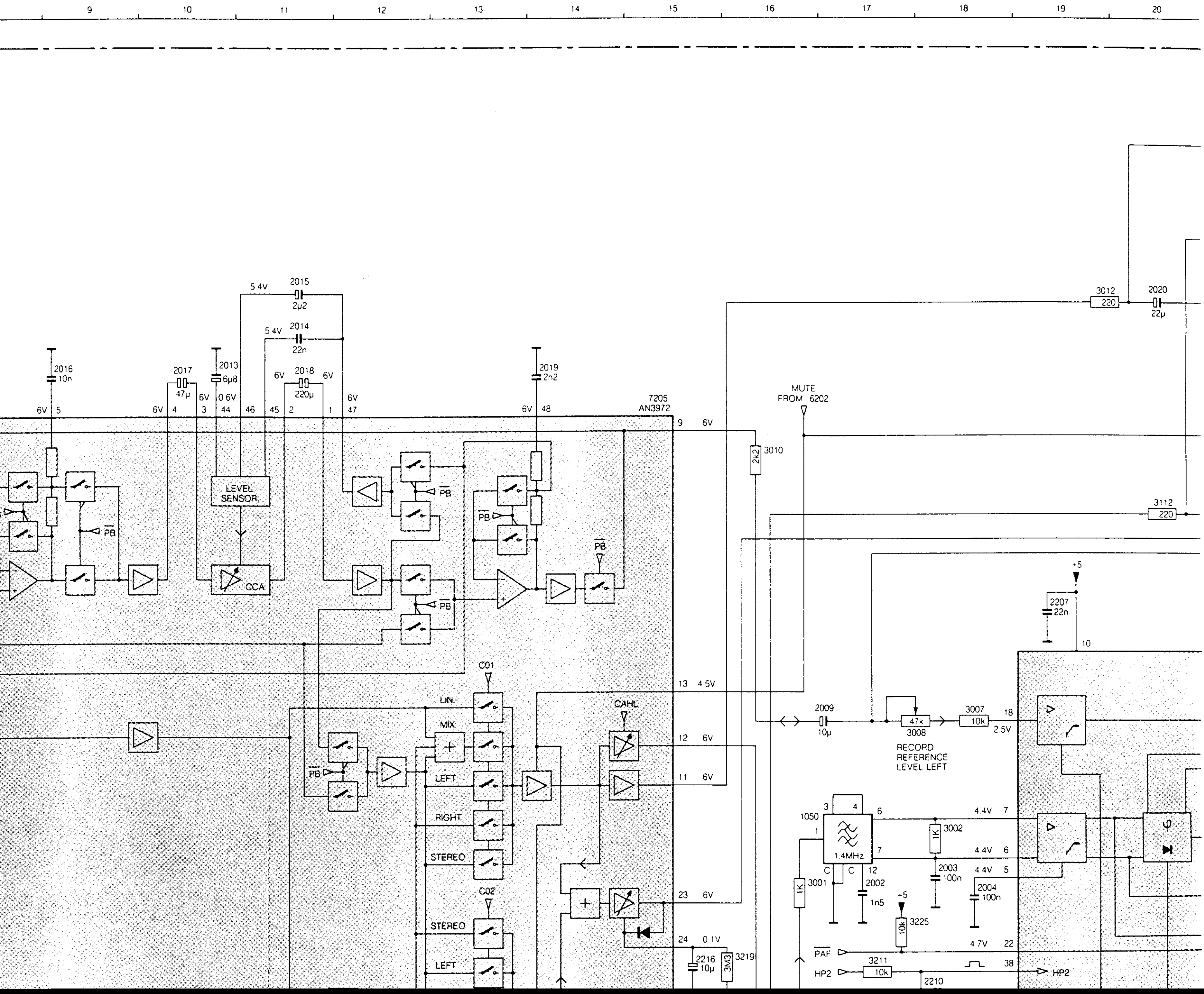

22
23
24
25
26
27
28
29
30
31
32
33
A
B
C
D
E
F
G
H
I
J
K
SUPPLY
NC
2754 220n
2755 22n
2758 22µ
2757 10µ
2756 10µ
3753 100k
3752 100k
+12AA
TO IC7830 PIN 15
TO IC7830 PIN 14
1.7V
1kHz
800mV
MULTISTEREO ONLY
2752 47µ
FOR MULTISTEREO ONLY
FROM 3816
2835 10µ
FOR MULTISTEREO ONLY
3835 3k3
3954 0
DELETE FOR MULTISTEREO
7831 BC848B
6V
3834 10k
3817 10k
3833 1k
3838 470
2831 100n
3959 0
2830 10µ
3832 100k
DELETE FOR NICAM
+5
3818 1k
3839 10k
3837 10k
3838 10k
7832 BC848B
FOR NICAM ONLY
2837 22µ
7830 4053
Vdd
Vss
Vee
3830 100k
2833 10µ
2834 10µ
3831 100k
AFV1
AFV2
JAF/IO TO IC7333 PIN 1
FROM 3752
JAF/IO TO IC7330 PIN 12
FROM 3753
JAF/IO FROM 2620
JAF/IO TO IC7531-B PIN 1
3825 10k
3826 10k
9077 DELETE FOR NICAM
3825,3826 FOR NICAM ONLY
CRISTAL OSCILATOR
BUFFER
ERROR REGISTER
IPSR
ILSR
TIMING & CONTROL
INTERPOLATION & FILTER RAM
ROM
ARRAY MULTIPLIER
ACCUMULATOR
24
23
FROM IC7801
18
16 BCK 3.8V
22 NC
21 NC
20 NC
19 NC
+5G
5810 100µ
3811 3k9
2810 100n
2811 100µ
+5GB
FOR NICAM AND MULTI-STEREO ONLY
5822 270µ
9157 DELETE FOR NICAM AND MULTISTEREO
2828 100n
2829 100µ
7820 TDA1543
L OUTPUT REG
R OUTPUT REG.
LE
IBL
IBR
L BIT SWITCHES
R BIT SWITCHES
5-BIT PASSIVE DIVIDER
IL BIT PASSIVE DIVIDER
5-BIT DIVIDER
CURRENT SOURCE
ADR 8 2V
ADL 6 2V
2820
3820
2821
3821
2824 100n
7821
TL072CP-00
3822

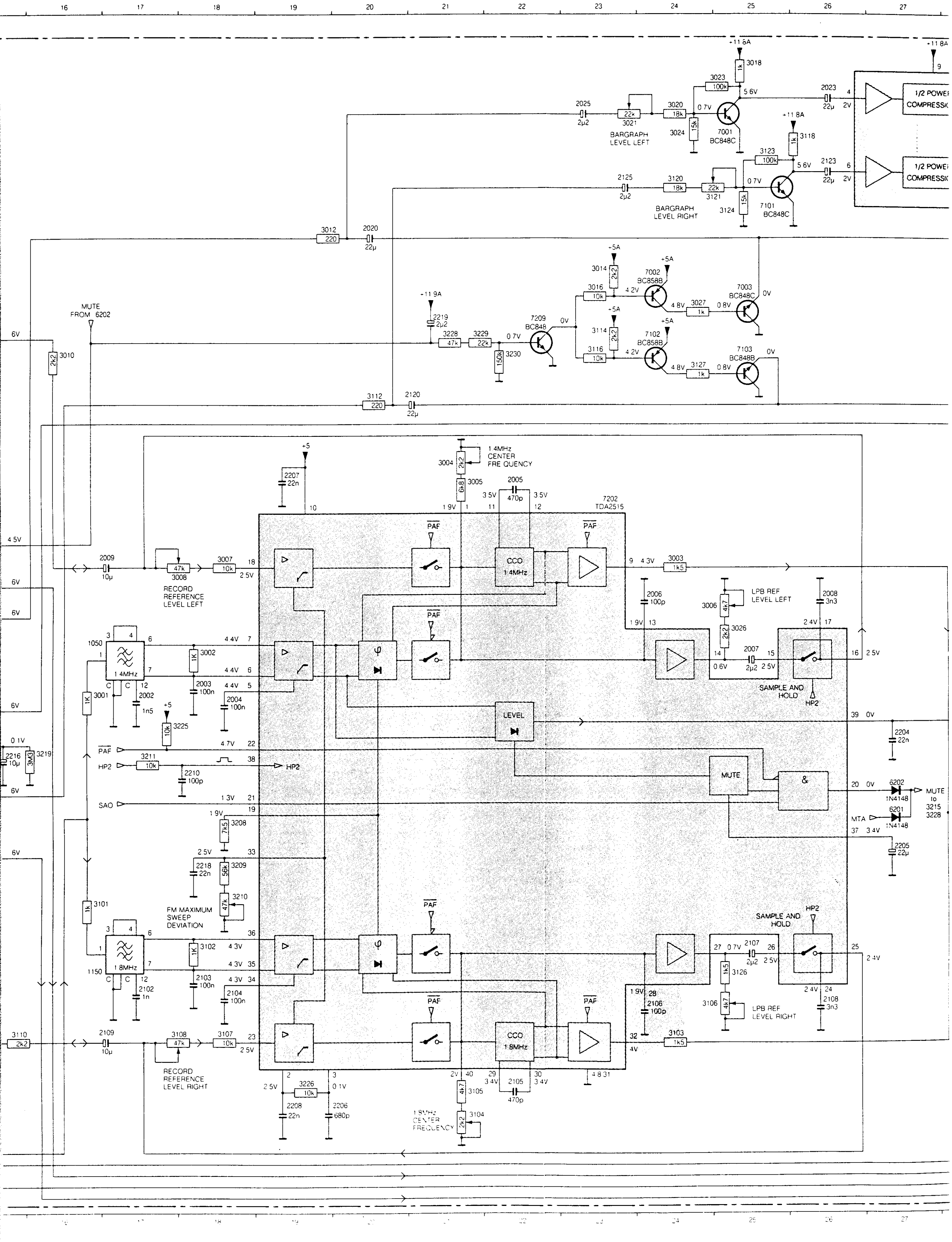
POSITION	PAL BG	PALI
3820 3822	680	1k
3821 3823	4k7	7k5
2821 2823	4n7	3n9
2820 2822	56n	39n
3824	15k	5k6

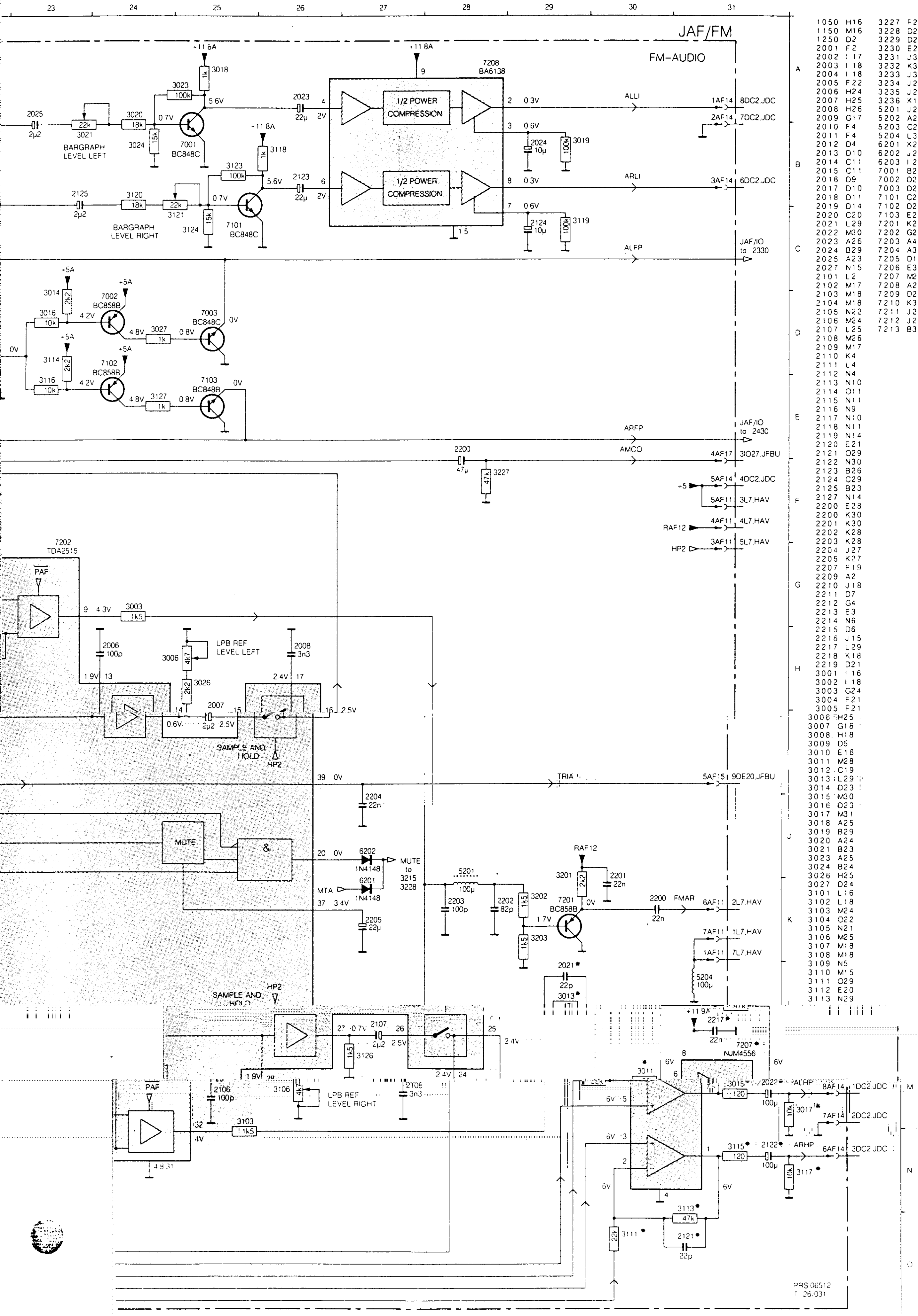
FM audio JAF


JFBU 1DE20
13AF15
+5A
5202
100μ
2209
6μ8
+5
JAF/IO
+11 8A
3222
47k
7213
BC848
7204
BC848
3205
10k
12V
3206
2K2
7203
BC328-40
3204
33
0V
RAF12
JFBU 10DE20
4AF15
RAF
3207
47k
0 7V
+5A
3220
1k
JFBU 11DE20
3AF15
HP2
JFBU 7DE20
7AF15
MTA to 6201
JAF/IO to 3635
5203
100μH
+11 8A
1250
T160mA
+11 9A
JFBU 2DE20
12AF15
+12A
JAF/IO to 3642
JDC 5DC2
4AF14
3218
22k
0 7V
CAHL
18
7206
BC848B
MUTE
3215
150k
0 6V
3214
1M
2213
22n
JDC 3DC3
4AF12
JDC 2DC3
5AF12
ALHO
JAF/IO to 3394
ALFR
2001
22μ
ALHO
2011
22μ
6
6V
JDC 1DC3
6AF12
ALOH
2010
2μ2
7
6V
JAF/IO IC7635 PIN 7
3221
1k
5V
22
MAAL
JFBU/AL 1IO27
6AF17
AMLP
3217
10k
2212
2μ2
14
6V
JFBU/AL 2IO27
5AF17
3216
2k7
JAF/IO from IC7635 PIN 6
3224
100k
SAO2
0V
20
JAF/IO from IC7635 PIN 5
3223
100k
SAO1
5V
19
3213
47k
3212
47k
SAO
15
SWITCHING LOGIC
C01
C02
PB
CONTROL SIGNALS FOR OUTPUT SWITCH
PAF
16
JFBU 8DE20
6AF15
PAF
6203
1N4148
4 7V
JAF/IO to 3908
ARHO
21
DL2
+12A
3234
10k
0V
+12A
3235
100k
7211
BC848B
3233
6k8
3231
220k
7212
BC848B
7210
BC848B
0 2V
JAF/IO IC7635 PIN 11
DL2
3236
100k
0V
0 7V
3232
100k
JDC 6DC3
1AF12
AROH
2110
2μ2
30
6V
MAAL
JAF/IO to 3494
ARFR
2101
22μ
2111
22μ
31
6V
DL2
JDC 5DC3
2AF12
ARHO
2012
10μ
3009
1M
0 2V
8
+11 8A
41
2215
22n
2211
100μ
2016
10n
6V
5
2017
47μ
6V
4
2013
6μ8
6V
3
0 6V
44
46
45
5 4V
2015
2μ2
5 4V
2014
22n
6V
2018
220μ
2
6V
1
47
20kHz
PB
MAAL
LEVEL SENSOR
CCA
0 2V
29
2112
10μ
3109
1M
6V
17
2214
100μ
6V
32
2116
10n
33
6V
2117
47μ
34
6V
2113
6μ8
42
0 6V
40
39
35
2118
220μ
6V
36
38
6V
5 4V
2115
2μ2
5 4V
2114
22n
HAV 6L7
2AF11
FMAP
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
1
2
3
4
5
6
7
8
9
10
11

*ONLY FOR LP


9
10
11
12
13
14
15
16
17
18
19
20
2015
2µ2
5.4V
2014
22n
5.4V
2016
10n
2017
47µ
2013
6µ8
2018
220µ
2019
2n2
6V
0.6V
5
4
3
44
46
45
2
1
47
48
7205
AN3972
LEVEL
SENSOR
CCA
PB
C01
C02
LIN
MIX
LEFT
RIGHT
STEREO
CAHL
9
12
11
13
23
24
4.5V
0.1V
2216
10µ
3219
3M3
MUTE
FROM 6202
3010
2k2
3012
220
2020
22µ
3112
220
+5
2207
22n
10
2009
10µ
3008
47k
3007
10k
18
2.5V
RECORD
REFERENCE
LEVEL LEFT
1050
1.4MHz
3002
1K
4.4V
7
6
5
2003
100n
2002
1n5
2004
100n
3001
1K
3225
10k
C
PAF
4.7V
22
HP2
3211
10k
38
2210
φ


16
17
18
19
20
21
22
23
24
25
26
27
+11 8A
3018
1k
3023
100k
5 6V
2023
22µ
2V
4
9
1/2 POWER
COMPRESSI
2025
2µ2
22k
3021
3020
18k
0 7V
15k
3024
7001
BC848C
BARGRAPH
LEVEL LEFT
+11 8A
1k
3118
3123
100k
5 6V
2123
22µ
2V
6
1/2 POWE
COMPRESSI
2125
2µ2
3120
18k
22k
3121
0 7V
15k
3124
7101
BC848C
BARGRAPH
LEVEL RIGHT
3012
220
2020
22µ
+5A
3014
2k2
7002
BC858B
+5A
3016
10k
4 2V
4 8V
3027
1k
0 8V
7003
BC848C
0V
+11 9A
2219
2µ2
3228
47k
3229
22k
0 7V
150k
3230
7209
BC848
0V
+5A
3114
2k2
7102
BC858B
+5A
3116
10k
4 2V
4 8V
3127
1k
0 8V
7103
BC848B
0V
MUTE
FROM 6202
6V
2k2
3010
3112
220
2120
22µ
+5
2207
22n
10
1 4MHz
CENTER
FRE QUENCY
3004
2k2
6k8
3005
2005
470p
3 5V
3 5V
1 9V
1
11
12
7202
TDA2515
4 5V
PAF
PAF
2009
10µ
47k
3008
RECORD
REFERENCE
LEVEL LEFT
3007
10k
18
2 5V
CCO
1 4MHz
9
4 3V
3003
1k5
2006
100p
LPB REF
LEVEL LEFT
3006
4k7
2k2
3026
2008
3n3
1 9V
13
2 4V
17
1050
3
4
6
7
1
1 4MHz
12
C
C
3002
1K
4 4V
4 4V
7
6
2003
100n
4 4V
5
2004
100n
3001
1K
2002
1n5
+5
10k
3225
φ
14
2007
2µ2
15
0 6V
2 5V
16
2 5V
SAMPLE AND
HOLD
HP2
LEVEL
39
0V
2204
22n
0 1V
2216
10µ
3M3
3219
PAF
3211
10k
HP2
4 7V
22
38
2210
100p
HP2
MUTE
&
20
0V
6202
1N4148
MUTE
to
3215
3228
6201
1N4148
MTA
37
3 4V
2205
22µ
SAO
1 3V
21
19
1 9V
7k5
3208
2 5V
33
2218
22n
56k
3209
47k
3210
FM MAXIMUM
SWEEP
DEVIATION
3101
1k
36
1150
1 8MHz
3102
1K
4 3V
4 3V
35
4 3V
34
2103
100n
2104
100n
2102
1n
SAMPLE AND
HOLD
HP2
27
0 7V
2107
2µ2
26
2 5V
25
2 4V
2 4V
24
2108
3n3
1k5
3126
4k7
3106
LPB REF
LEVEL RIGHT
1 9V
28
2106
100p
3110
2k2
2109
10µ
3108
47k
RECORD
REFERENCE
LEVEL RIGHT
3107
10k
23
2 5V
CCO
1 8MHz
32
4V
3103
1k5
4 8 31
2
3
2 5V
3226
10k
0 1V
2208
22n
2206
680p
2V
40
29
3 4V
30
3 4V
2105
470p
4k7
3105
2k2
3104
1 8MHz
CENTER
FREQUENCY


23
24
25
26
27
28
29
30
31
JAF/FM
FM-AUDIO
A
B
C
D
E
F
G
H
J
K
M
N
O
+11.6A
3018
1k
+11.8A
7208
BA6138
9
3023
100k
5.6V
2023
22μ
2V
4
1/2 POWER COMPRESSION
2
0.3V
ALLI
1AF14
8DC2.JDC
2AF14
7DC2.JDC
2025
2μ2
22k
3021
3020
18k
0.7V
7001
BC848C
3024
15k
BARGRAPH LEVEL LEFT
3
0.6V
2024
10μ
100k
3019
+11.8A
3118
1k
3123
100k
5.6V
2123
22μ
2V
6
8
0.3V
ARLI
3AF14
6DC2.JDC
2125
2μ2
3120
18k
22k
3121
0.7V
7101
BC848C
3124
15k
BARGRAPH LEVEL RIGHT
7
0.6V
2124
10μ
100k
3119
15
ALFP
JAF/IO to 2330
+5A
3014
2k2
+5A
7002
BC858B
3016
10k
4.2V
7003
BC848C
0V
4.8V
3027
1k
0.8V
0V
+5A
3114
2k2
+5A
7102
BC858B
3116
10k
4.2V
7103
BC848B
0V
4.8V
3127
1k
0.8V
ARFP
JAF/IO to 2430
2200
47μ
AMCO
4AF17
3IO27.JFBU
47k
3227
+5
5AF14
4DC2.JDC
5AF11
3L7.HAV
RAF12
4AF11
4L7.HAV
HP2
3AF11
5L7.HAV
7202
TDA2515
PAF
9
4.3V
3003
1k5
2006
100p
3006
4k7
LPB REF LEVEL LEFT
2008
3n3
3026
2k2
1.9V
13
2.4V
17
14
2007
15
16
2.5V
0.6V
2μ2
2.5V
SAMPLE AND HOLD
HP2
39
0V
TRIA
5AF15
9DE20.JFBU
2204
22n
MUTE
&
20
0V
6202
1N4148
MUTE to 3215 3228
MTA
6201
1N4148
37
3.4V
2205
22μ
5201
100μ
2203
100p
2202
82p
3202
1k5
RAF12
3201
2k2
2201
22n
7201
BC858B
0V
1.7V
2200
FMAR
22n
6AF11
2L7.HAV
3203
1k5
7AF11
1L7.HAV
1AF11
7L7.HAV
5204
100μ
2021*
22p
3013*
SAMPLE AND HOLD
HP2
27
0.7V
2107
2μ2
2.5V
26
25
2.4V
3126
1k5
2.4V
24
1.9V
PAF
2106
100p
3106
4k7
LPB REF LEVEL RIGHT
2108
3n3
32
4V
3103
1k5
+11.9A
2217*
22n
7207*
NJM4556
6V
8
3011
6V
6
6V
5
3015*
120
2022*
100μ
ALHP
8AF14
1DC2.JDC
10k
3017*
7AF14
2DC2.JDC
6V
3
2
1
3115*
120
2122*
100μ
ARHP
6AF14
3DC2.JDC
10k
3117*
6V
4
6V
3113*
47k
22k
3111*
2121*
22p
PRS 06512
1 26/031

1050	H16
1150	M16
1250	D2
2001	F2
2002	I 17
2003	I 18
2004	I 18
2005	F22
2006	H24
2007	H25
2008	H26
2009	G17
2010	F4
2011	F4
2012	D4
2013	D10
2014	C11
2015	C11
2016	D9
2017	D10
2018	D11
2019	D14
2020	C20
2021	L29
2022	M30
2023	A26
2024	B29
2025	A23
2027	N15
2101	L2
2102	M17
2103	M18
2104	M18
2105	N22
2106	M24
2107	L25
2108	M26
2109	M17
2110	K4
2111	L4
2112	N4
2113	N10
2114	O11
2115	N11
2116	N9
2117	N10
2118	N11
2119	N14
2120	E21
2121	O29
2122	N30
2123	B26
2124	C29
2125	B23
2127	N14
2200	E28
2200	K30
2201	K30
2202	K28
2203	K28
2204	J27
2205	K27
2207	F19
2209	A2
2210	J18
2211	D7
2212	G4
2213	E3
2214	N6
2215	D6
2216	J15
2217	L29
2218	K18
2219	D21
3001	I 16
3002	I 18
3003	G24
3004	F21
3005	F21
3006	H25
3007	G16
3008	H18
3009	D5
3010	E16
3011	M28
3012	C19
3013	L29
3014	D23
3015	M30
3016	D23
3017	M31
3018	A25
3019	B29
3020	A24
3021	B23
3023	A25
3024	B24
3026	H25
3027	D24
3101	L16
3102	L18
3103	M24
3104	O22
3105	N21
3106	M25
3107	M18
3108	M18
3109	N5
3110	M15
3111	O29
3112	E20
3113	N29
3114	D23
3115	N30
3116	E23
3117	N31
3118	B26
3119	C29
3120	B24
3121	C25
3123	B25
3124	C25
3126	M25
3127	E24
3201	K29
3202	K29
3203	K29
3205	A4
3207	B2
3208	K18
3209	K18
3210	L18
3211	J17
3212	I 2
3213	I 2
3214	E3
3215	E2
3216	H3
3217	G3
3218	D2
3219	J16
3221	G3
3222	A3
3223	H2
3224	H2
3225	I 17
3226	N19
3227	F28
3228	D21
3229	D21
3230	E22
3231	J3
3232	K3
3233	J3
3234	J2
3235	J2
3236	K1
5201	J28
5202	A2
5203	C2
5204	L31
6201	K27
6202	J27
6203	I 2
7001	B25
7002	D24
7003	D25
7101	C25
7102	D24
7103	E25
7201	K29
7202	G23
7203	A4
7204	A3
7205	D15
7206	E3
7207	M29
7208	A28
7209	D22
7210	K3
7211	J2
7212	J2
7213	B3

Settings of the JAF FM audio section

The settings of Items 3 and 4 are set to an exact value in the works and must ONLY be changed if important components of the FM modulator, among them the modem ICs 2515, have been replaced.

1. Setting of the bar graph drive

Measurement preparation:

- Bring the unit into the AUDIO mode; the two recording level controls in mid-position (click position)
- Apply a signal of 1 kHz (500 mV_{eff}) to the CINCH connector

1.1 Setting of the recording level for the left channel (3021)

- Make a recording by means of the OTR key
- Adjust the indication of the fluorescence meter to 0 dB for the left channel with 3021

1.2 Setting of the recording level for the right channel (3121)

- Make a recording by means of the OTR key
- Adjust the indication of the fluorescence meter to 0 dB for the right channel with 3121

2. Setting the carrier frequency

2.1 Setting the 1.4 MHz carrier frequency (3004)

- Connect a capacitor of 220 nF between pin 32 of IC7202 and the chassis
- Connect a frequency meter to emitter 7201
- Set the recording controls at the front panel to minimum and switch the recorder to the recording mode
- Regulate the frequency to 1.4 MHz ± 5 kHz with 3004
- Disconnect the capacitor between pin 32 of IC 7202 and chassis

2.2 Setting of the 1.8 MHz carrier frequency (3104)

- Connect a capacitor of 220 nF between pin 9 of IC7202 and chassis
- Connect a frequency meter to the emitter of 7201
- Set the recording controls at the front panel to minimum and switch the recorder to the recording mode
- Regulate the frequency to 1.8 MHz ± 5 kHz with 3104
- Disconnect the capacitor between pin 9 of IC7202 and chassis

3. Setting of the maximum FM swing

Measurement preparation:

- Bring the modulation controls into the mechanical mid-position
- Turn controls for the nominal FM swing (3210) completely to the left (maximum amplitude)
- Make a recording of an input signal of 1.5 V_{eff} (measured at pin 6 for the left and pin 31 of IC7205 for the right) and 10 kHz

3.1 Setting the maximum FM swing for 1,4 MHz (3210)

- Connect a capacitor of 220 nF between connection 32 of IC7202 and the chassis
- Connect an oscilloscope to emitter 7201
- Switch the recorder to the recording mode
- Trigger the oscilloscope to the correct position (Fig. 1)
- Increase the fifth period T (Fig. 2) with the "DELAYED TIME BASE" and measure the deviation
- The time T should be equal to 0,63 µs ± 0,15 µs; this corresponds to an FM swing of approx. 150 kHz
- Remove the capacitor between pin 32 of IC7202 and the chassis
- Now adjust the nominal FM swing according to 4.1

3.2 Control of the maximum FM swing for 1,8 MHz

- Connect a capacitor of 220 nF between connection 32 of IC7202 and the chassis
- Connect an oscilloscope to emitter 7201
- Switch the recorder to the recording mode
- Trigger the oscilloscope to the correct position (Fig. 1)
- Increase the fifth period T (Fig. 2) with the "DELAYED TIME BASE" and measure the deviation
- The time T should be equal to 0,46 µs ± 0,09 µs; this corresponds to an FM swing of approx. 150 kHz
- Remove the capacitor between pin 9 of IC7202 and the chassis
- Now adjust the nominal FM swing according to 4.2

4. Setting the nominal FM swing

Measurement preparation:

- Bring the modulation controls into the mechanical mid-position
- Make a recording of an input signal of 249 mV_{eff} (measured at pin 6 for the left and pin 31 of IC7205 for the right) and 1 kHz

4.1 Setting of the nominal FM swing for 1,4 MHz (3008)

- Connect a capacitor of 220 nF between pin 32 of IC7202 and chassis
- Connect an oscilloscope to emitter 7201
- Switch the recorder to the recording mode
- Trigger the oscilloscope to the correct position (Fig. 1)
- Increase the fifth period (Fig. 2) with the "DELAYED TIME BASE" and measure the deviation
- Regulate the time T with 3008 so that it is equal to 0.25 µs ± 0,06 µs; this corresponds to an FM swing of approx. 56 kHz
- Remove the capacitor between connection 32 of IC7202 and the chassis

4.2 Setting the nominal FM swing for 1.8 MHz (3108)

- Connect a capacitor of 220 nF between connection 9 of IC7202 and chassis
- Connect an oscilloscope to emitter 7201
- Switch the recorder to the recording mode
- Trigger the oscilloscope to the correct position (Fig. 1)
- Increase the fifth period T (Fig. 2) with the "DELAYED TIME BASE" and measure the deviation
- Regulate the time T with 3108 so that it is equal to 0.17 µs ± 0,03 µs; this corresponds to an FM swing of approx. 56 kHz
- Remove the capacitor beteen connection 9 of IC7202 and the chassis

5. Setting the demodulator (amplitude reproduction)

Before the demodulator is regulated, one should be convinced that the adjustments of the FM swing are correct. If this is not the case, they must first be set in accordance with Items 3 and 4.

Measurement preparation:

- Bring the modulation controls (recording level controls) into the mechanical mid-position
- Make a recording of an input signal of 250 mV_{eff} (measured at pin 6 for the left and pin 31 of IC7205 for the right) and 1 kHz

5.1 Setting of the 1,4 MHz demodulator (3006)

- Connect a millivoltmeter to emitter 7003
- Reproduce the recording made above
- Regulate the voltage to 250 $mV_{eff} \pm 10$ mV with 3006

5.2 Setting of the 1,8 MHz demodulator (3106)

- Connect a millivoltmeter to emitter 7103
- Reproduce the recording made above
- Regulate the voltage to 250 $mV_{eff} \pm 10$ mV with 3106

Setting of the JAF/stereodecoder

1. Alignment to minimal interferences through the video-IF (5760)

- Connect a pattern generator via the aerial jack and feed an unmodulated stereo signal
- Connect a two-beam oscilloscope to pin 6 and 7 of IC 7760
- align to minimal interferences with 5760

2. Alignment of the 5.5 MHz FM demodulator (5761)

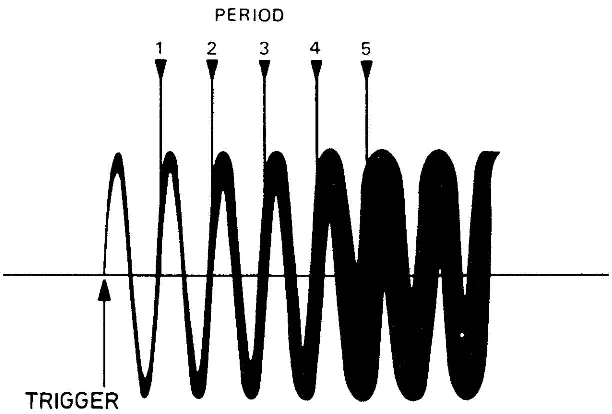
- Connect a pattern generator via the aerial jack and feed a stereo signal modulated on both sides (1 kHz)
- Connect an oscilloscope to pin 7 of IC 7760
- Align to maximum amplitude with 5761

3. Alignment of the 5.74 MHz FM demodulator (5762)

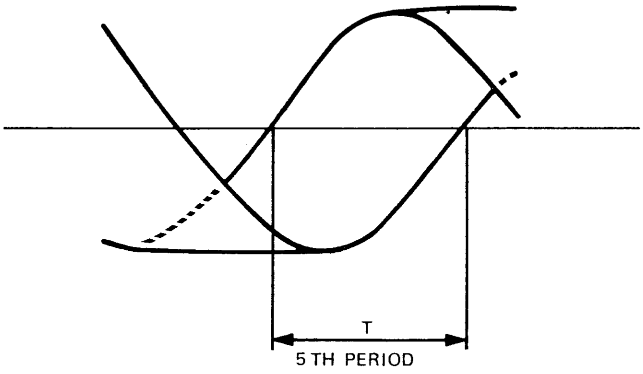
- Connect a pattern generator as described in Item 2
- Connect an oscilloscope to pin 6 of IC 7760
- Align to maximum amplitude with 5762

4. Alignment of the output voltage (3768)

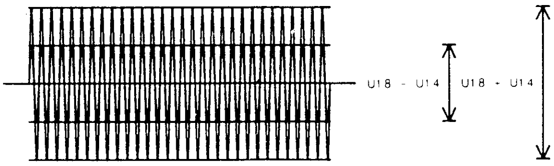
- Connect a pattern generator as described in Item 2
- Connect a two-beam oscilloscope to pin 11 and pin 12 of IC 7750
- Set both signals to the same amplitude with 3768



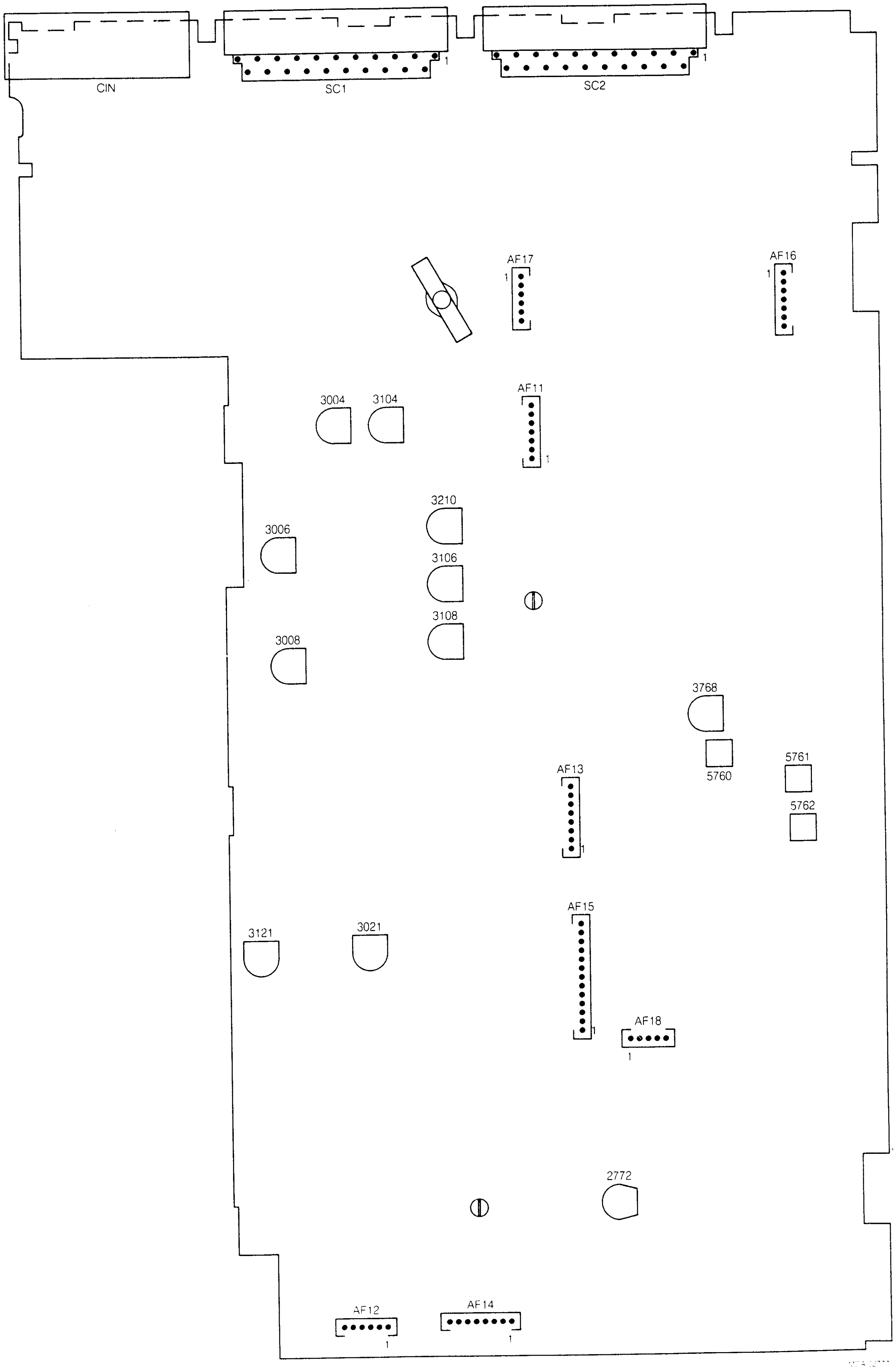
39 595 A12



39 596 A12

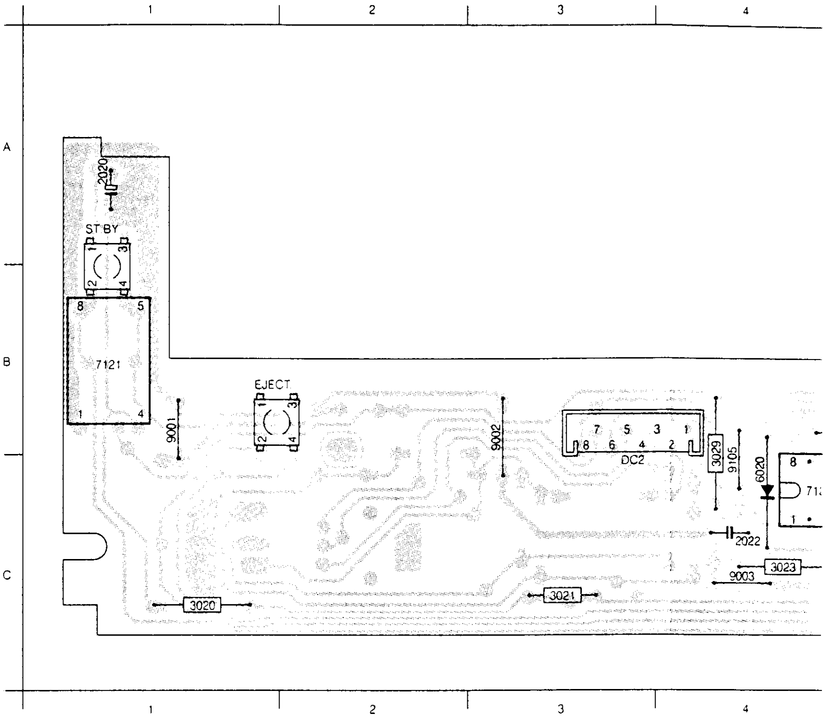


MDA 00155
I28 744


CIN
SC1
SC2
AF17
AF16
AF11
AF13
AF15
AF18
AF12
AF14

Operating panel JDC5

DC1	A12	2004	B15	2020	A1	3001	A15	3023	C4	3029	C4	3033	B16	3043
DC2	C3	2005	B15	2021	C5	3020	C1	3026	C5	3030	A16	3040	C8	3050
DC3	C8	2011	A12	2022	C4	3021	C3	3027	C5	3031	A16	3041	A16	3051
1002	B15	2012	C11	2031	B16	3022	C5	3028	B4	3032	B16	3042	C8	3052



Einstellungen auf JDC

Aussteuerung der Fluoreszenzmesser (3090 R, 3092 L)

- Signal von 500 mV$_{eff}$ 1 kHz zuführen an Cinch Buchse.
- Recorder in Position "PAUSE, AUDIO EXTERN (E1)".
- Schiebepotentiometer 3068-2A (L) und 3068-2B (R) in die mechanische Mitte.
- 3090 (R) und 3092 (L) so einstellen, daß die Aussteuerung am Fluoreszenzmesser 0 dB anzeigt.

Adjustment on JDC

Adjustment of the deflection of the bargraph (3090 R, 3092 L)

- Apply a 500 mV$_{rms}$ 1 kHz signal to the cinch connector.
- Recorder in position "PAUSE, AUDIO EXTERN (E1)".
- Slide potentiometers 3068-2A (L) and 3068-2B (R) in the mechanical middle position.
- Adjust 3090 (R) and 3092 (L) so, that the deflection of the bargraph is 0 dB.

Afregelin

1. Uitsturin

- Sluit een pluggen.
- Recorde
- Plaats s mechani
- Regel 3 bargrap

Ajustages

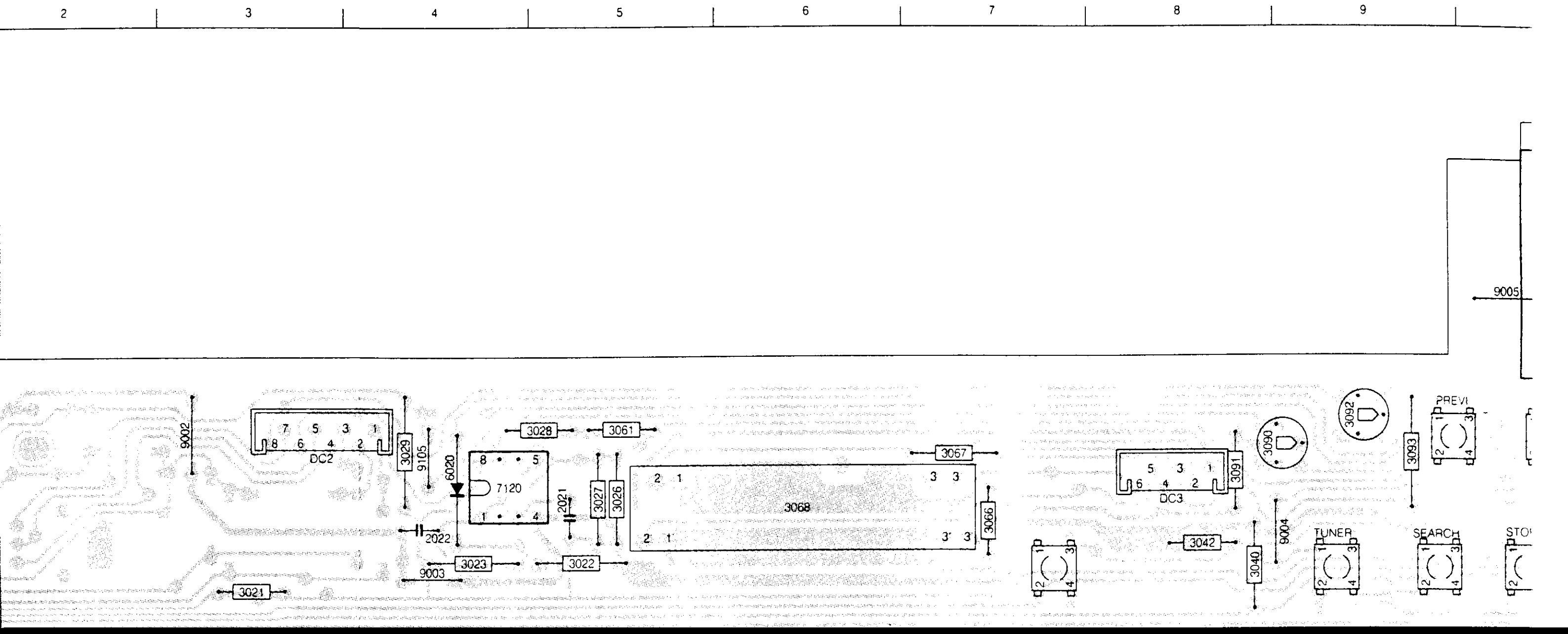
1. Saturati (3090 droit

- Applique prises ci
- Mettre l'
- Mettre le et 3068-
- Ajuster 3 déviation 0 dB.

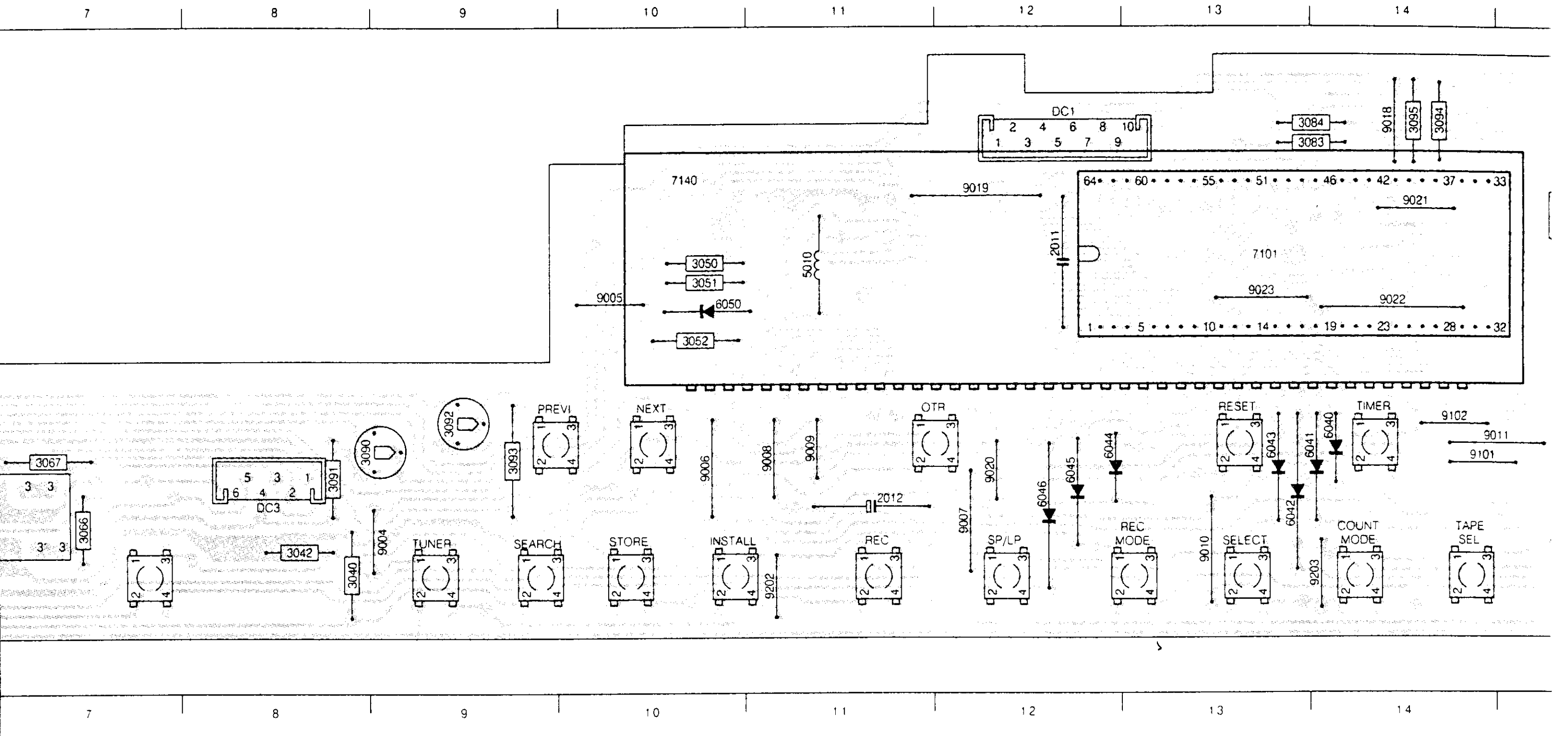
5

6

3001	A15
3020	C1
3021	C3
3022	C5
3023	C4
3026	C5
3027	C5
3028	B4
3029	C4
3030	A16
3031	A16
3032	B16
3033	B16
3040	C8
3041	A16
3042	C8
3043	A15
3050	B10
3051	B10
3052	B10
3061	B5
3066	C7
3067	C7
3068	C6
3083	A13
3084	A13
3085	A15
3086	A15
3090	C8
3091	C8
3092	B9
3093	C9
3094	A14
3095	A14
5010	B11
6020	C4
6040	B14
6041	C14
6042	C13
6043	C13
6044	C12
6045	C12
6046	C12
6050	B10
7030	A16
7101	A13
7120	C4
7121	B1
7140	A10
9001	B1
9002	B3
9003	C4
9004	C9
9005	B10
9006	C10
9007	C12


2
3
4
5
6
7
8
9
9005
9002
7 5 3 1
8 6 4 2
DC2
3029
9105
6020
8 5
7120
1 4
3028
3061
2021
3027
3026
3067
2 1
3 3
3068
2 1
3 3
3066
2022
9003
3023
3022
3021
5 3 1
6 4 2
DC3
3091
3090
3092
3093
PREVI
1 3
2 4
3042
3040
9004
TUNER
SEARCH
STO

094	A14
095	A14
010	B11
020	C4
6040	B14
6041	C14
6042	C13
6043	C13
6044	C12
6045	C12
6046	C12
6050	B10
7030	A16
7101	A13
7120	C4
7121	B1
7140	A10
9001	B1
9002	B3
9003	C4
9004	C9
9005	B10
9006	C10
9007	C12
9008	C11
9009	C11
9010	C13
9011	B14
9012	B15
9013	A15
9014	A15
9015	A15
9018	A14
9019	A12
9020	C12
9021	A14
9022	B14
9023	B13
9101	C14
9102	B14
9105	C4
9202	C11
9203	C14
9204	B15
9205	B15
9206	C15


7
8
9
10
11
12
13
14
DC1
2 4 6 8 10
1 3 5 7 9
3084
3083
9018
3095
3094
7140
9019
64 60 55 51 46 42 37 33
9021
7101
9023
9022
1 5 10 14 19 23 28 32
2011
5010
3050
3051
6050
9005
3052
PREVI
NEXT
OTR
RESET
TIMER
9102
9011
9101
3067
3092
3093
3090
3091
5 3 1
6 4 2
DC3
3066
3042
3040
9004
TUNER
SEARCH
STORE
INSTALL
9006
9008
9009
9202
2012
REC
9007
9020
SP/LP
6046
6045
6044
REC MODE
9010
SELECT
6043
6042
6041
6040
9203
COUNT MODE
TAPE SEL

de cinch
(E1)".
B (R) in de
lag op het
es
sur les
N (E1)"
(gauche)
e la
soit de

Ajustes en JDC

1. Modulación de los fluorímetros (3090 R, 3092 L)

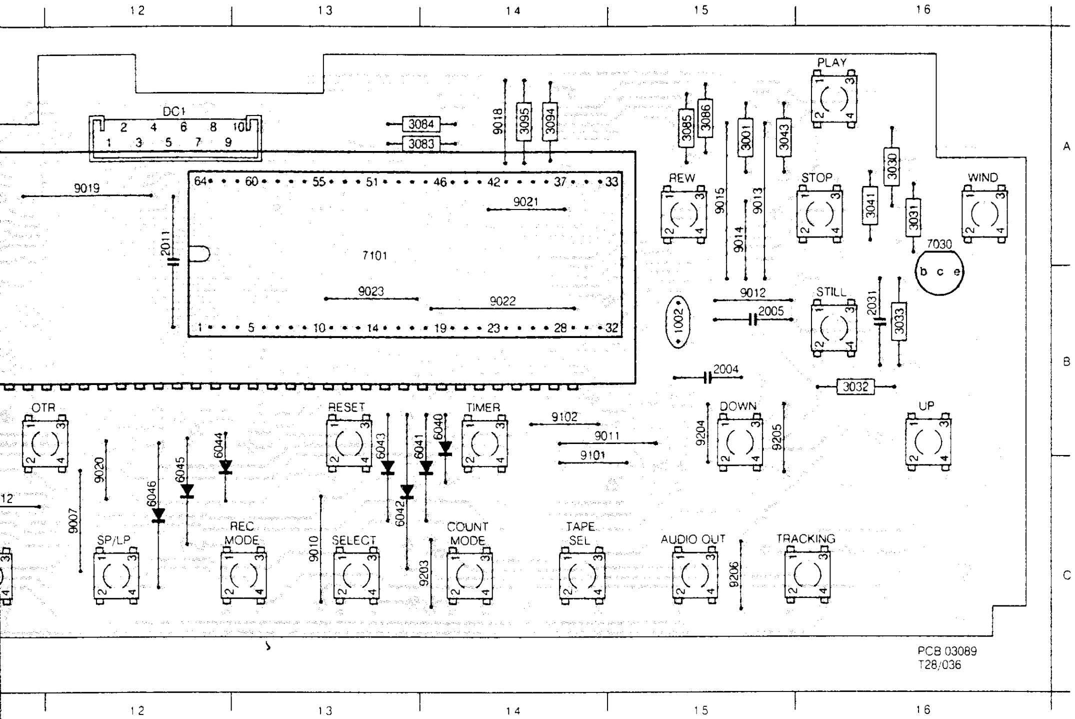
- Aplique una señal de 500 mV$_{eff}$ 1 kHz al clavijero cinch.
- Ponga el aparato en posición "PAUSE, AUDIO EXTERN (E1)".
- Empuje el potenciómetro 3068-2A (L) y 3068-2B (R) al centro mecánico.
- Ajuste 3090 (R) y 3092 (L) de manera que el fluorímetro indique 0 dB.

Regolazioni al JDC

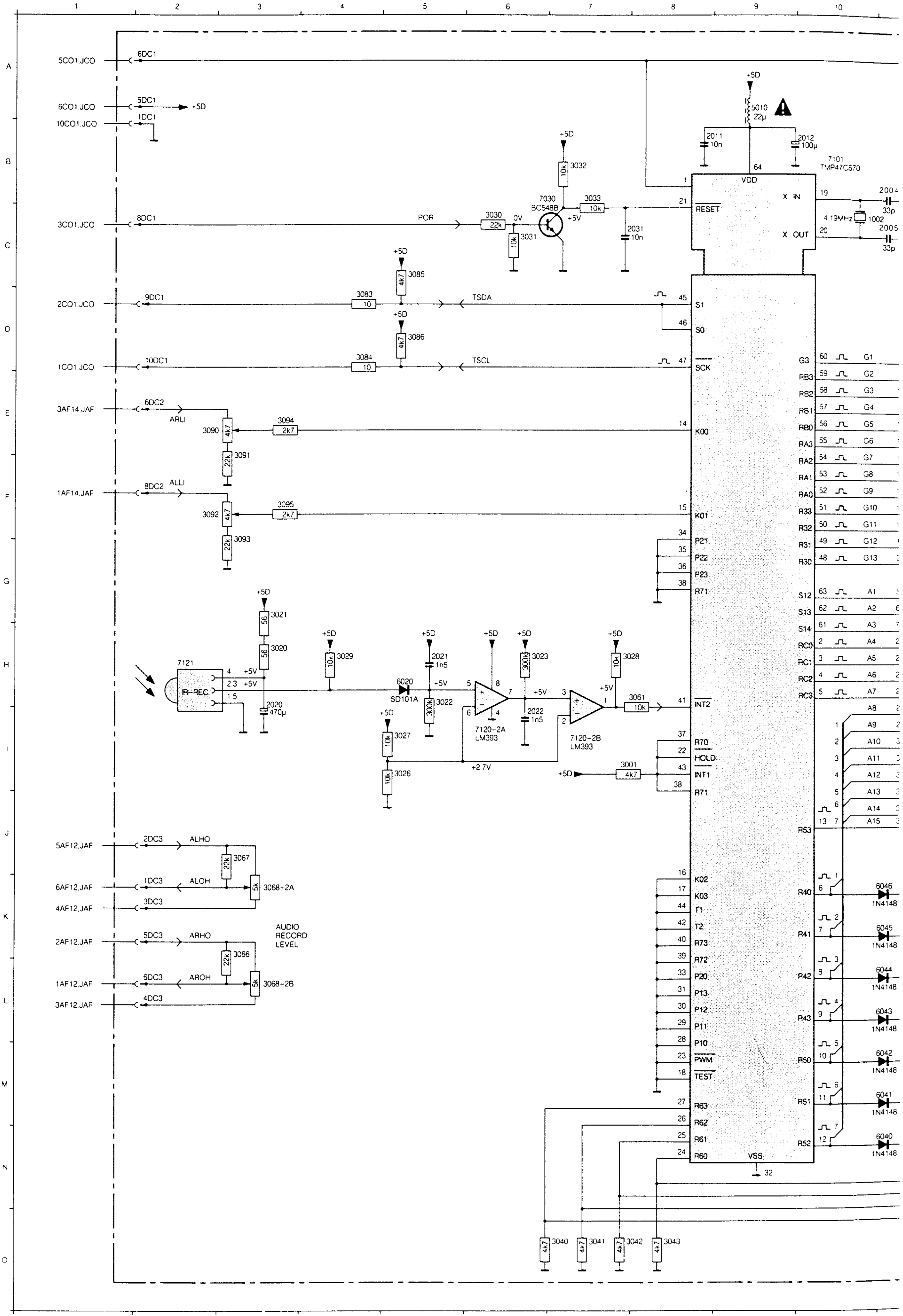
1. Modulazione dei misuratori della fluorescenza (3090 R, 3092 L)

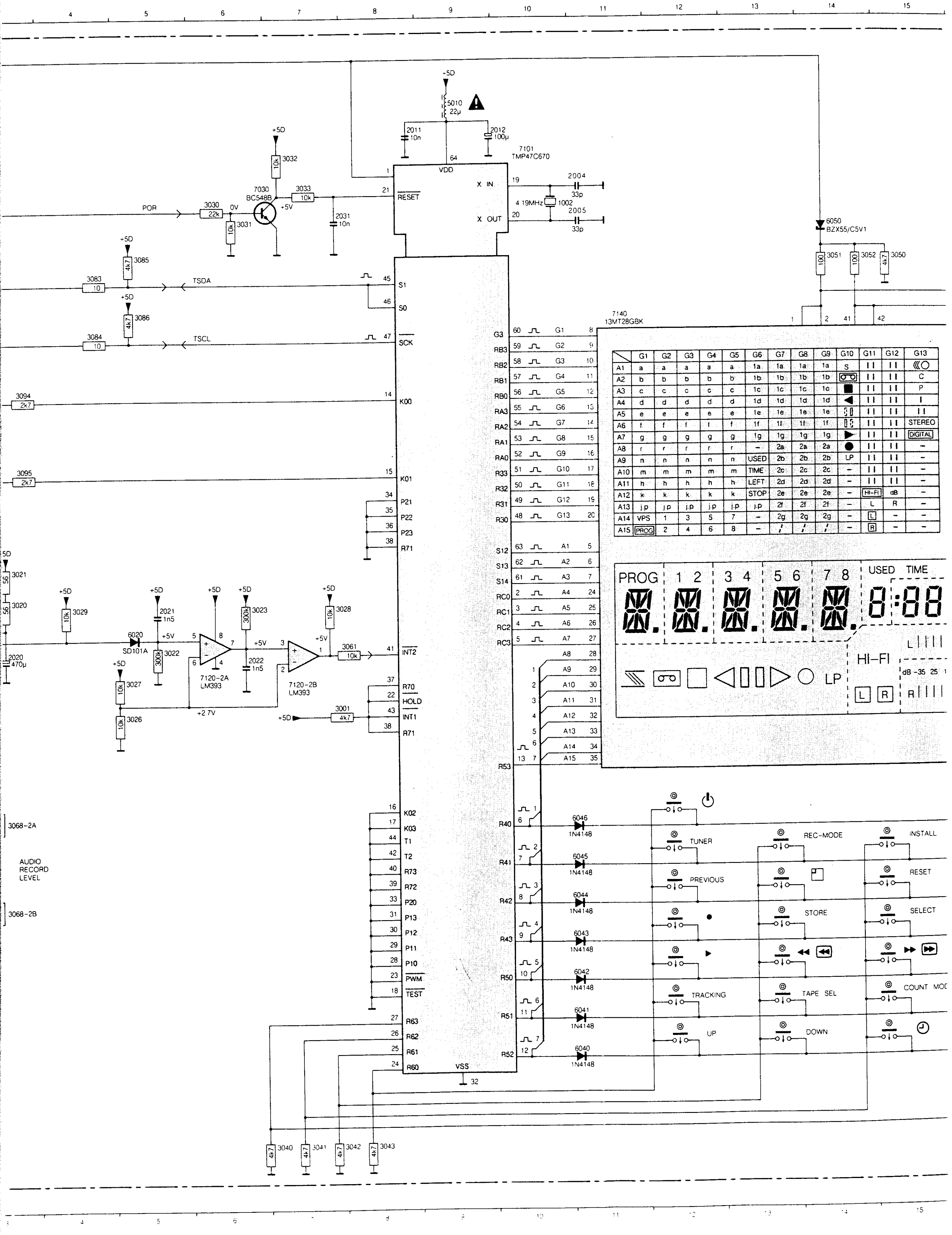
- Applicare un segnale di 500 mV$_{eff}$ 1 kHz alla presa cinch.
- Portare l'apparecchio in posizione "PAUSE, AUDIO EXTERN (E1)".
- Spingere il potenziometro 3068-2A (L) e 3068-2B (R) al centro meccanico.
- Regolare 3090 (R) e 3092(L) in modo che la modulazione sul misuratore della fluorescenza indichi 0 dB.

8 A14	9022 B14	9105 C4	9205 B15
9 A12	9023 B13	9202 C11	9206 C15
0 C12	9101 C14	9203 C14	
1 A14	9102 B14	9204 B15	

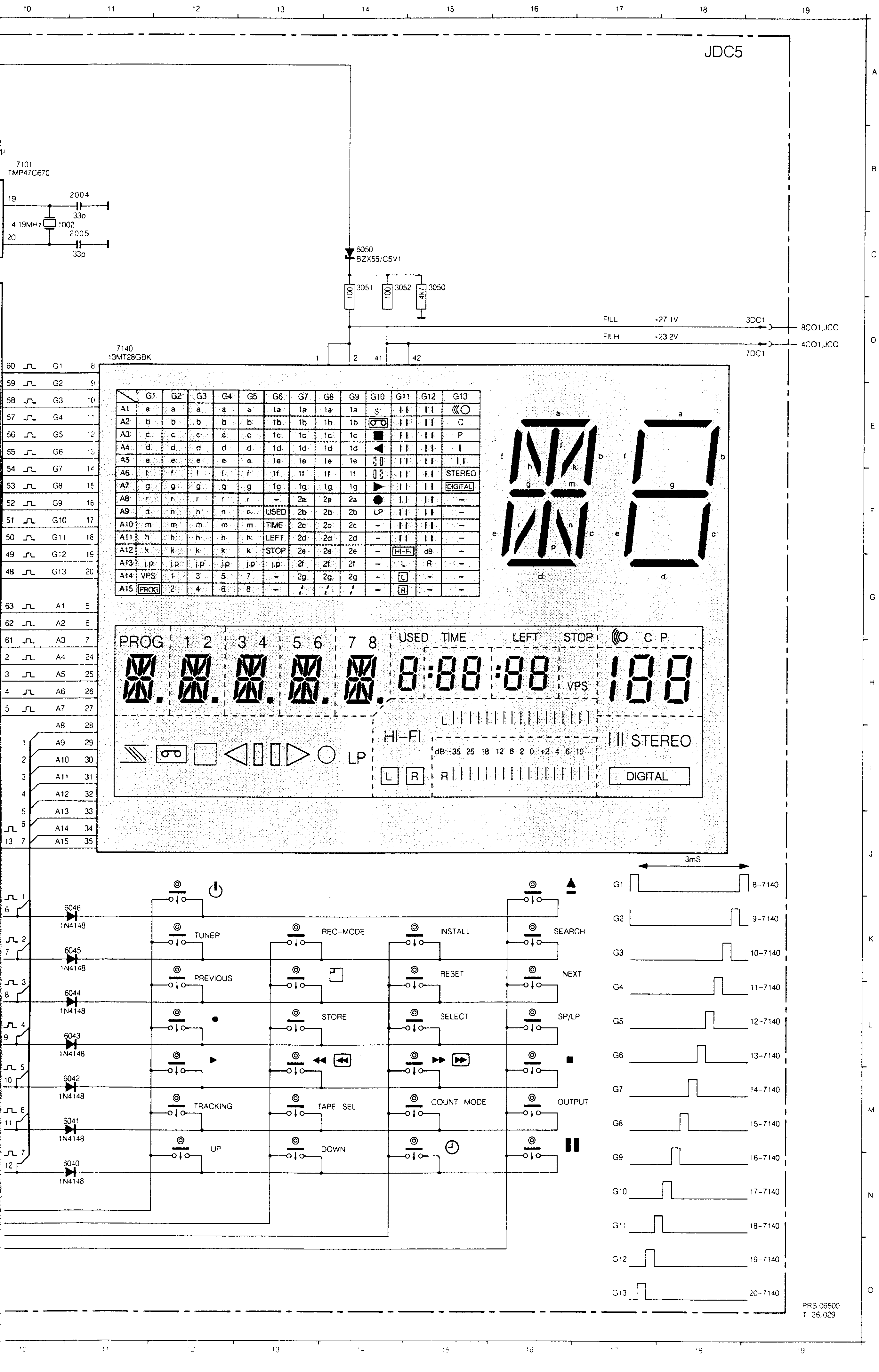

12
13
14
15
16
A
B
C
DC1
2 4 6 8 10
1 3 5 7 9
3084
3083
9018
3095
3094
3085
3086
3001
3043
PLAY
REW
STOP
WIND
9015
9014
9013
3041
3030
3031
7030
b c e
9019
9021
2011
7101
64 60 55 51 46 42 37 33
1 5 10 14 19 23 28 32
9023
9022
1002
9012
2005
STILL
2031
3033
2004
3032
OTR
RESET
TIMER
6043
6041
6040
6044
6045
6046
6042
9102
9011
9101
DOWN
9204
9205
UP
9020
9007
12
SP/LP
REC MODE
9010
SELECT
COUNT MODE
9203
TAPE SEL
AUDIO OUT
9206
TRACKING
PCB 03089
T28/036

Operating panel JDC5


5CO1.JCO
6DC1
6CO1.JCO
5DC1
+5D
10CO1.JCO
1DC1
3CO1.JCO
8DC1
POR
3030 22k
0V
3031 10k
7030 BC548B
3032 10k
3033 10k
+5V
2031 10n
2CO1.JCO
9DC1
3083 10
3085 4k7
TSDA
1CO1.JCO
10DC1
3084 10
3086 4k7
TSCL
3AF14.JAF
6DC2
ARLI
3090 4k7
3091 22k
3094 2k7
1AF14.JAF
8DC2
ALLI
3092 4k7
3093 22k
3095 2k7
3021 56
3020 56
7121 IR-REC
2020 470µ
3029 10k
6020 SD101A
2021 1n5
3022 300k
3027 10k
3026 10k
7120-2A LM393
3023 300k
2022 1n5
7120-2B LM393
+2.7V
3028 10k
3061 10k
3001 4k7
5AF12.JAF
2DC3
ALHO
3067 22k
6AF12.JAF
1DC3
ALOH
3068-2A 5k
4AF12.JAF
3DC3
2AF12.JAF
5DC3
ARHO
AUDIO RECORD LEVEL
3066 22k
1AF12.JAF
6DC3
AROH
3068-2B 5k
3AF12.JAF
4DC3
5010 22µ
2011 10n
2012 100µ
7101 TMP47C670
VDD
RESET
X IN
X OUT
4.19MHz 1002
2004 33p
2005 33p
S1
S0
SCK
K00
K01
P21
P22
P23
R71
INT2
R70
HOLD
INT1
K02
K03
T1
T2
R73
R72
P20
P13
P12
P11
P10
PWM
TEST
R63
R62
R61
R60
VSS
G3
RB3
RB2
RB1
RB0
RA3
RA2
RA1
RA0
R33
R32
R31
R30
S12
S13
S14
RC0
RC1
RC2
RC3
R53
R40
R41
R42
R43
R50
R51
R52
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
G11
G12
G13
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
6046 1N4148
6045 1N4148
6044 1N4148
6043 1N4148
6042 1N4148
6041 1N4148
6040 1N4148
3040 4k7
3041 4k7
3042 4k7
3043 4k7


-5D
5010
22µ
2011
10n
2012
100µ
7101
TMP47C670
VDD
64
1
21
RESET
X IN
19
X OUT
20
2004
33p
2005
33p
4 19MHz
1002
+5D
3032
10k
7030
BC548B
3033
10k
+5V
POR
3030
22k
0V
3031
10k
2031
10n
6050
BZX55/C5V1
3051
100
3052
100
3050
4k7
3085
4k7
3083
10
TSDA
3086
4k7
3084
10
TSCL
S1
S0
SCK
45
46
47
3094
2k7
K00
14
3095
2k7
K01
15
P21
P22
P23
R71
3021
56
3020
56
3029
10k
2021
1n5
6020
SD101A
3023
300k
3028
10k
3022
300k
7120-2A
LM393
2022
1n5
7120-2B
LM393
3061
10k
INT2
41
2020
470µ
3027
10k
3026
10k
+2.7V
3001
4k7
R70
HOLD
INT1
R71
7140
13MT28GBK
G3
RB3
RB2
RB1
RB0
RA3
RA2
RA1
RA0
R33
R32
R31
R30
S12
S13
S14
RC0
RC1
RC2
RC3
R53
PROG
1 2
3 4
5 6
7 8
USED TIME
HI-FI
LP
L
R
dB -35 25
3068-2A
AUDIO
RECORD
LEVEL
3068-2B
K02
K03
T1
T2
R73
R72
P20
P13
P12
P11
P10
PWM
TEST
R63
R62
R61
R60
VSS
32
R40
R41
R42
R43
R50
R51
R52
6046
6045
6044
6043
6042
6041
6040
1N4148
TUNER
PREVIOUS
TRACKING
UP
REC-MODE
STORE
TAPE SEL
DOWN
INSTALL
RESET
SELECT
COUNT MOD
3040
4k7
3041
3042
3043

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
A1	a	a	a	a	a	1a	1a	1a	1a	S	I I	I I	((○
A2	b	b	b	b	b	1b	1b	1b	1b	⊙⊙	I I	I I	C
A3	c	c	c	c	c	1c	1c	1c	1c	■	I I	I I	P
A4	d	d	d	d	d	1d	1d	1d	1d	◀	I I	I I	I
A5	e	e	e	e	e	1e	1e	1e	1e	▯▯	I I	I I	I I
A6	f	f	f	f	f	1f	1f	1f	1f	▯▯	I I	I I	STEREO
A7	g	g	g	g	g	1g	1g	1g	1g	▶	I I	I I	DIGITAL
A8	r	r	r	r	r	–	2a	2a	2a	●	I I	I I	–
A9	n	n	n	n	n	USED	2b	2b	2b	LP	I I	I I	–
A10	m	m	m	m	m	TIME	2c	2c	2c	–	I I	I I	–
A11	h	h	h	h	h	LEFT	2d	2d	2d	–	I I	I I	–
A12	k	k	k	k	k	STOP	2e	2e	2e	–	HI-FI	dB	–
A13	j.p	j.p	j.p	j.p	j.p	j.p	2f	2f	2f	–	L	R	–
A14	VPS	1	3	5	7	–	2g	2g	2g	–	L	–	–
A15	PROG	2	4	6	8	–	/	/	/	–	R	–	–


10
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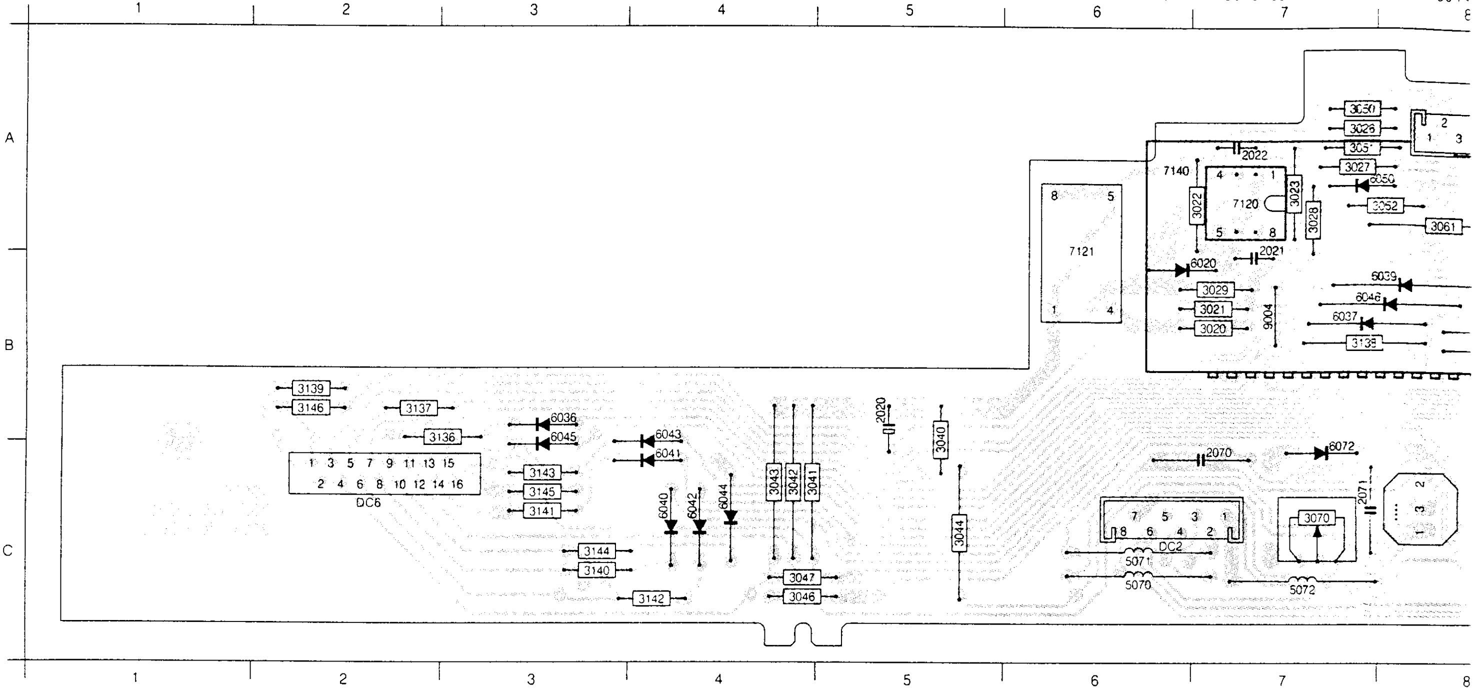
19
JDC5
7101
TMP47C670
19
20
2004
33p
4 19MHz
1002
2005
33p
6050
BZX55/C5V1
3051
100
3052
100
3050
4k7
FILL
+27 1V
FILH
+23 2V
3DC1
7DC1
8CO1.JCO
4CO1.JCO
7140
13MT28GBK
1
2
41
42
60 G1 8
59 G2 9
58 G3 10
57 G4 11
56 G5 12
55 G6 13
54 G7 14
53 G8 15
52 G9 16
51 G10 17
50 G11 18
49 G12 19
48 G13 20
63 A1 5
62 A2 6
61 A3 7
2 A4 24
3 A5 25
4 A6 26
5 A7 27
A8 28
1 A9 29
2 A10 30
3 A11 31
4 A12 32
5 A13 33
6 A14 34
13 7 A15 35
a b c d e f g h j k m n p r
PROG
1 2
3 4
5 6
7 8
USED
TIME
LEFT
STOP
C P
VPS
HI-FI
L
R
dB -35 25 18 12 6 2 0 +2 4 6 10
STEREO
DIGITAL
LP
6046 1N4148
6045 1N4148
6044 1N4148
6043 1N4148
6042 1N4148
6041 1N4148
6040 1N4148
TUNER
REC-MODE
INSTALL
SEARCH
PREVIOUS
RESET
NEXT
STORE
SELECT
SP/LP
TRACKING
TAPE SEL
COUNT MODE
OUTPUT
UP
DOWN
3mS
G1 8-7140
G2 9-7140
G3 10-7140
G4 11-7140
G5 12-7140
G6 13-7140
G7 14-7140
G8 15-7140
G9 16-7140
G10 17-7140
G11 18-7140
G12 19-7140
G13 20-7140
PRS 06500
T-26.029
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
A1	a	a	a	a	a	1a	1a	1a	1a	S	I I	I I	((○
A2	b	b	b	b	b	1b	1b	1b	1b	o-o	I I	I I	C
A3	c	c	c	c	c	1c	1c	1c	1c	■	I I	I I	P
A4	d	d	d	d	d	1d	1d	1d	1d	◀	I I	I I	I
A5	e	e	e	e	e	1e	1e	1e	1e	⁞▯	I I	I I	I I
A6	f	f	f	f	f	1f	1f	1f	1f	▯⁞	I I	I I	STEREO
A7	g	g	g	g	g	1g	1g	1g	1g	▶	I I	I I	DIGITAL
A8	r	r	r	r	r	–	2a	2a	2a	●	I I	I I	–
A9	n	n	n	n	n	USED	2b	2b	2b	LP	I I	I I	–
A10	m	m	m	m	m	TIME	2c	2c	2c	–	I I	I I	–
A11	h	h	h	h	h	LEFT	2d	2d	2d	–	I I	I I	–
A12	k	k	k	k	k	STOP	2e	2e	2e	–	HI-FI	dB	–
A13	j.p	j.p	j.p	j.p	j.p	j.p	2f	2f	2f	–	L	R	–
A14	VPS	1	3	5	7	–	2g	2g	2g	–	[L]	–	–
A15	PROG	2	4	6	8	–	/	/	/	–	[R]	–	–

1002	C10
2004	B11
2005	C11
2011	B8
2012	B10
2020	I 3
2021	H5
2022	I 6
2031	C7
3001	I 7
3020	H3
3021	G3
3022	H5
3023	H6
3026	I 5
3027	I 5
3028	H7
3029	H4
3030	C6
3031	C6
3032	B7
3033	B7
3040	O7
3041	O7
3042	O7
3043	O8
3050	C15
3051	C14
3052	C14
3061	H8
3066	K3
3067	J3
3068	K3
3068	L3
3083	D4
3084	D4
3085	C5
3086	D5
3090	E3
3091	F3
3092	F3
3093	G3
3094	E3
3095	F3
5010	A9
6020	H5
6040	N11
6041	M11
6042	M11
6043	L11
6044	L11
6045	K11
6046	K11
6050	C14
7030	B6
7101	B10
7121	H2
7140	D11

Operating panel JDC7

DC1	A8
DC2	C6
DC3	C9
DC5	A11
DC6	C2
RSC	B11
••••	C8
1002	B11
2011	A9
2012	A11
2020	B5
2021	B7
2022	A7
2031	B12
2070	C7
2071	C7
3005	A11
3020	B7
3021	B7
3022	A7
3023	A7
3026	A7
3027	A7
3028	A7
3029	B7
3030	A12
3031	A12
3032	B12
3033	B12
3040	C5
3041	C5
3042	C4
3043	C4
3044	C5
3045	C12
3046	C4
3047	C4
3050	A7
3051	A7
3052	A7
3060	C10
3061	A8
3066	C9
3067	C10
3068	C9
3070	C7
3081	A10
3082	A10
3083	A9
3084	A9
3090	C12
3091	B12
3092	C12
3093	B12
3094	A12
3095	A12
3099	A11
3136	C2
3137	B2
3138	B7
3139	B2
3140	C3
3141	C3
3142	C4
3143	C3
3144	C3
3145	C3
3146	B2
3147	B12
3735	C12
5010	A12
5070	C6
5071	C6
5072	C7
6020	B6
6036	B3
6037	B7
6038	B8
603	
604	
6041	
6042	
6043	
6044	


1
2
3
4
5
6
7
8
A
B
C
7140
7120
7121
2022
2021
3022
3023
3028
3050
3026
3027
3052
3061
6020
6039
6046
6037
3029
3021
3020
9004
3139
3146
3137
3136
6036
6045
6043
6041
3143
3145
3141
6040
6042
6044
3144
3140
3142
3043
3042
3041
3047
3046
2020
3040
3044
2070
6072
2071
3070
DC2
DC6
5071
5070
5072
1 3 5 7 9 11 13 15
2 4 6 8 10 12 14 16

Einstellungen auf JDC

Aussteuerung der Fluoreszenzmesser (3090 R, 3092 L)

- Signal von 500 mV$_{eff}$ 1 kHz zuführen an Cinch Buchse.
- Recorder in Position "PAUSE, AUDIO EXTERN (E1)".
- Schiebepotentiometer 3068-2A (L) und 3068-2B (R) in die mechanische Mitte.
- 3090 (R) und 3092 (L) so einstellen, daß die Aussteuerung am Fluoreszenzmesser 0 dB anzeigt.

Adjustment on JDC

Adjustment of the deflection of the bargraph (3090 R, 3092 L)

- Apply a 500 mV$_{rms}$ 1 kHz signal to the cinch connector.
- Recorder in position "PAUSE, AUDIO EXTERN (E1)".
- Slide potentiometers 3068-2A (L) and 3068-2B (R) in the mechanical middle position.
- Adjust 3090 (R) and 3092 (L) so, that the deflection of the bargraph is 0 dB.

Afregelingen op JDC

1. Uitsturing bargraph display (3090 R, 3092 L)

- Sluit een audio signaal 500 mV$_{eff}$ 1 kHz aan op de cinch pluggen.
- Recorder in positie "PAUSE, AUDIO EXTERN (E1)".
- Plaats schuifpotmeters 3068-2A (L) en 3068-2B (R) in de mechanische middenstand.
- Regel 3090 (R) en 3092 (L) zodanig af dat uitslag op het bargraph display 0 dB is.

Ajustages sur la JDC

1. Saturation de l'affichage du diagramme à barres (3090 droite, 3092 gauche)

- Appliquer un signal audio de 500 mV$_{eff}$ 1 kHz sur les prises cinch.
- Mettre l'appareil sur "PAUSE, AUDIO EXTERN (E1)"
- Mettre les potentiomètres à coulisse 3068-1A (gauche) et 3068-2B (droite) en position médiane.
- Ajuster 3090 (droite) et 3092 (gauche) pour que la déviation du diagramme à barres à l'afficheur soit de 0 dB.

Ajus

1. M

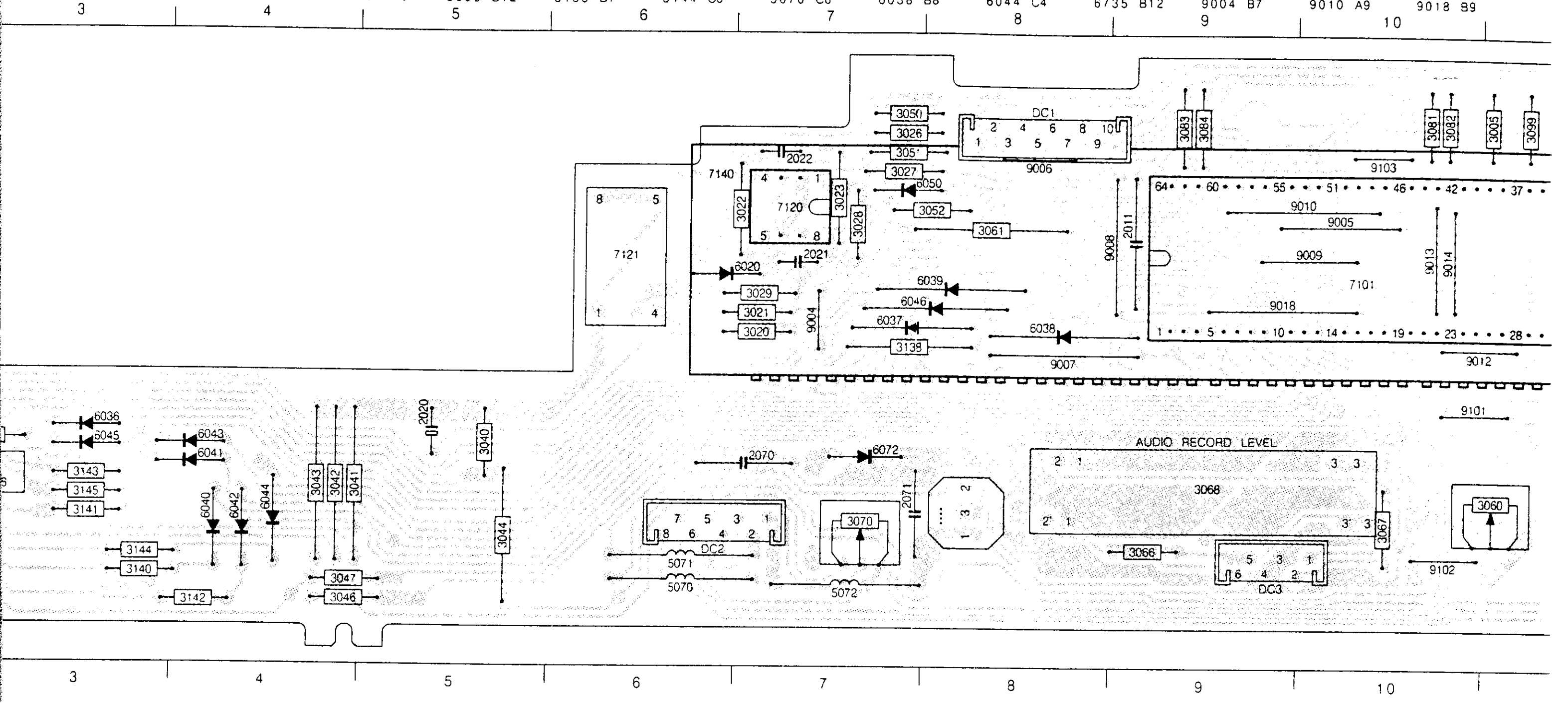
– Ap
– Po
(E
– Er
ce
– Aj
in

Reg

1. M
(309

– Ap
– Po
E
– Sp
ce
– Re
m
0

3029	B7
3030	A12
3031	A12
3032	B12
3033	B12
3040	C5
3041	C5
3042	C4
3043	C4
3044	C5
3045	C12
3046	C4
3047	C4
3050	A7
3051	A7
3052	A7
3060	C10
3061	A8
3066	C9
3067	C10
3068	C9
3070	C7
3081	A10
3082	A10
3083	A9
3084	A9
3090	C12
3091	B12
3092	C12
3093	B12
3094	A12
3095	A12
3099	A11
3136	C2
3137	B2
3138	B7
3139	B2
3140	C3
3141	C3
3142	C4
3143	C3
3144	C3
3145	C3
3146	B2
3147	B12
3735	C12
5010	A12
5070	C6
5071	C6
5072	C7
6020	B6
6036	B3
6037	B7
6038	B8
6039	B7
6040	C4
6041	C4
6042	C4
6043	B4
6044	C4
6045	C3
6046	B7
6047	A12
6050	A7
6072	C7
6735	B12
7030	B12
7101	B10
7120	A7
7121	B6
7140	A6
9004	B7
9005	A10
9006	A8
9007	B8
9008	A9
9009	A9
9010	A9
9012	B10
9013	B10
9014	B10
9015	B12
9016	A12
9018	B9
910	
910	
910	


3
4
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6
7
8
9
10
3050
3026
3051
3027
6050
3052
3061
DC1
2 4 6 8 10
1 3 5 7 9
9006
3083
3084
3081
3082
3005
3099
9103
7140
2022
7120
3022
3023
3028
2021
6020
3029
3021
3020
9004
7121
6039
6046
6037
3138
6038
9007
9008
2011
9010
9005
9009
7101
9013
9014
9018
9012
9101
6036
6045
6043
6041
3143
3145
3141
3144
3140
3142
6040
6042
6044
3043
3042
3041
3047
3046
2020
3040
3044
2070
6072
2071
DC2
5071
5070
3070
5072
AUDIO RECORD LEVEL
3068
3067
3066
DC3
3060
9102

0 R, 3092 L)

Cinch Buchse.

TERN (E1)".

068-2B (R) in

die

B anzeigt.

ch connector.

TERN (E1)".

8-2B (R) in the

deflection of

Afregelingen op JDC

1. Uitsturing bargraph display (3090 R, 3092 L)

- Sluit een audio signaal 500 mV$_{eff}$ 1 kHz aan op de cinch pluggen.
- Recorder in positie "PAUSE, AUDIO EXTERN (E1)".
- Plaats schuifpotmeters 3068-2A (L) en 3068-2B (R) in de mechanische middenstand.
- Regel 3090 (R) en 3092 (L) zodanig af dat uitslag op het bargraph display 0 dB is.

Ajustages sur la JDC

1. Saturation de l'affichage du diagramme à barres (3090 droite, 3092 gauche)

- Appliquer un signal audio de 500 mV$_{eff}$ 1 kHz sur les prises cinch.
- Mettre l'appareil sur "PAUSE, AUDIO EXTERN (E1)"
- Mettre les potentiomètres à coulisse 3068-1A (gauche) et 3068-2B (droite) en position médiane.
- Ajuster 3090 (droite) et 3092 (gauche) pour que la déviation du diagramme à barres à l'afficheur soit de 0 dB.

Ajustes en JDC

1. Modulación de los fluorímetros (3090 R, 3092 L)

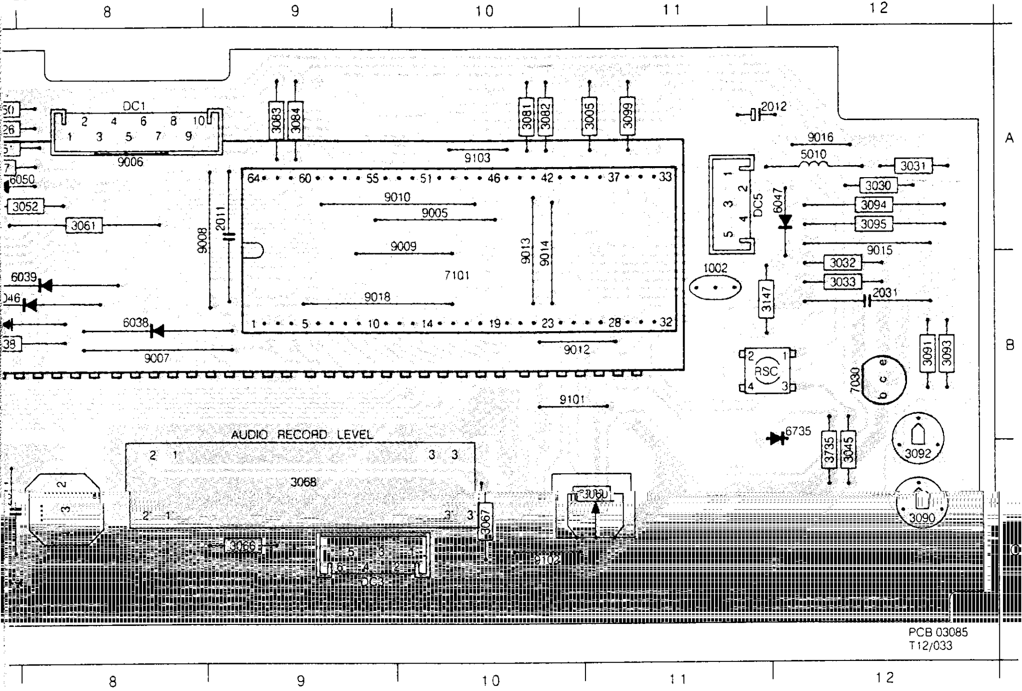
- Aplique una señal de 500 mV$_{eff}$ 1 kHz al clavijero cinc
- Ponga el aparato en posición "PAUSE, AUDIO EXTE (E1)".
- Empuje el potenciómetro 3068-2A (L) y 3068-2B (R) centro mecánico.
- Ajuste 3090 (R) y 3092 (L) de manera que el fluoríme indique 0 dB.

Regolazioni al JDC

1. Modulazione dei misuratori della fluorescenza (3090 R, 3092 L)

- Applicare un segnale di 500 mV$_{eff}$ 1 kHz alla presa cir
- Portare l'apparecchio in posizione "PAUSE, AUDIO EXTERN (E1)".
- Spingere il potenziometro 3068-2A (L) e 3068-2B (R) centro meccanico.
- Regolare 3090 (R) e 3092(L) in modo che la modulazione sul misuratore della fluorescenza indichi 0 dB.

	C6	6039	B7	6045	C3	7030	B12	9005	A10	9012	B10	9101	B10
	C7	6040	C4	6046	B7	7101	B10	9006	A8	9013	B10	9102	C10
	B6	6041	C4	6047	A12	7120	A7	9007	B8	9014	B10	9103	A10
	B3	6042	C4	6050	A7	7121	B6	9008	A9	9015	B12		
	B7	6043	B4	6072	C7	7140	A6	9009	A9	9016	A12		
	B8	6044	C4	6735	B12	9004	B7	9010	A9	9018	B9		


8
9
10
11
12
A
B
C
DC1
9006
3052
3061
6039
6038
9007
3083
3084
9008
2011
9103
9010
9005
9009
9018
7101
9013
9014
3081
3082
3005
3099
9012
9101
2012
9016
5010
3031
3030
3094
3095
DC5
6047
9015
3032
3033
2031
1002
3147
RSC
7030
3091
3093
6735
3735
3045
3092
3090
AUDIO RECORD LEVEL
3068
3067
3066
DC3
PCB 03085
T12/033

Ajustes en JDC

1. Modulación de los fluorímetros (3090 R, 3092 L)

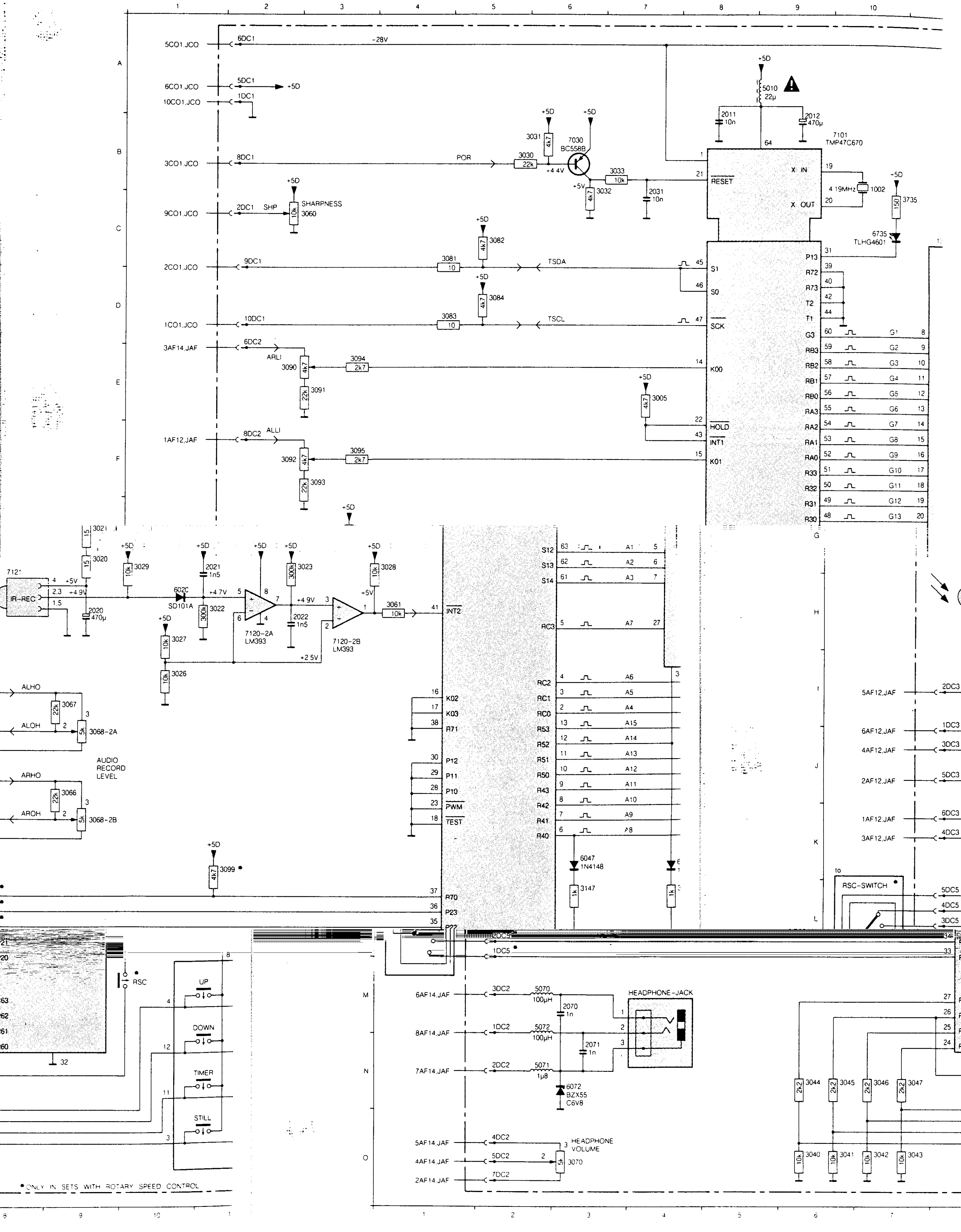
- Aplique una señal de 500 mV$_{eff}$ 1 kHz al clavijero cinch.
- Ponga el aparato en posición "PAUSE, AUDIO EXTERN (E1)".
- Empuje el potenciómetro 3068-2A (L) y 3068-2B (R) al centro mecánico.
- Ajuste 3090 (R) y 3092 (L) de manera que el fluorímetro indique 0 dB.

Regolazioni al JDC

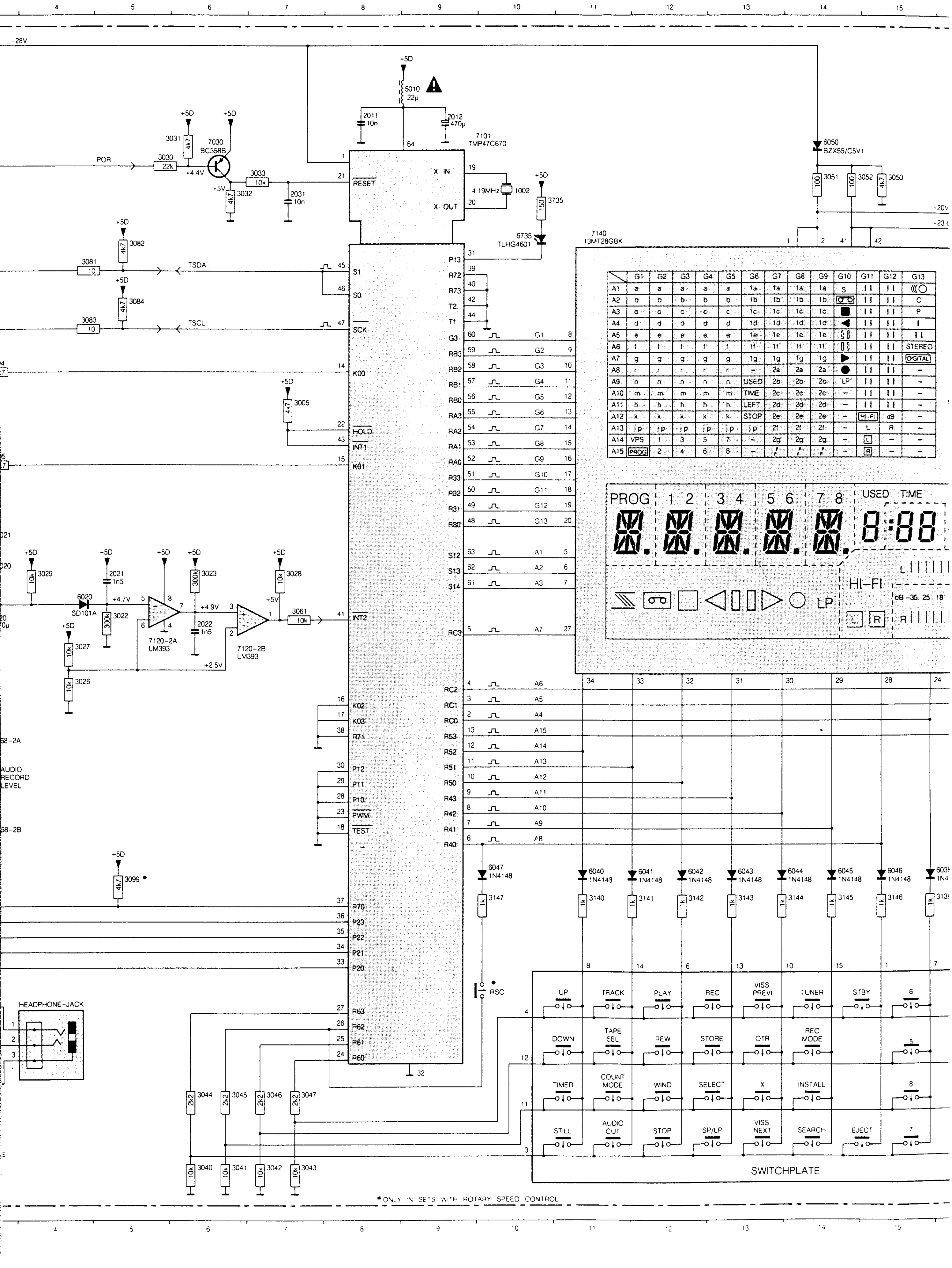
1. Modulazione dei misuratori della fluorescenza (3090 R, 3092 L)

- Applicare un segnale di 500 mV$_{eff}$ 1 kHz alla presa cinch.
- Portare l'apparecchio in posizione "PAUSE, AUDIO EXTERN (E1)".
- Spingere il potenziometro 3068-2A (L) e 3068-2B (R) al centro meccanico.
- Regolare 3090 (R) e 3092(L) in modo che la modulazione sul misuratore della fluorescenza indichi 0 dB.

Operating panel JDC7

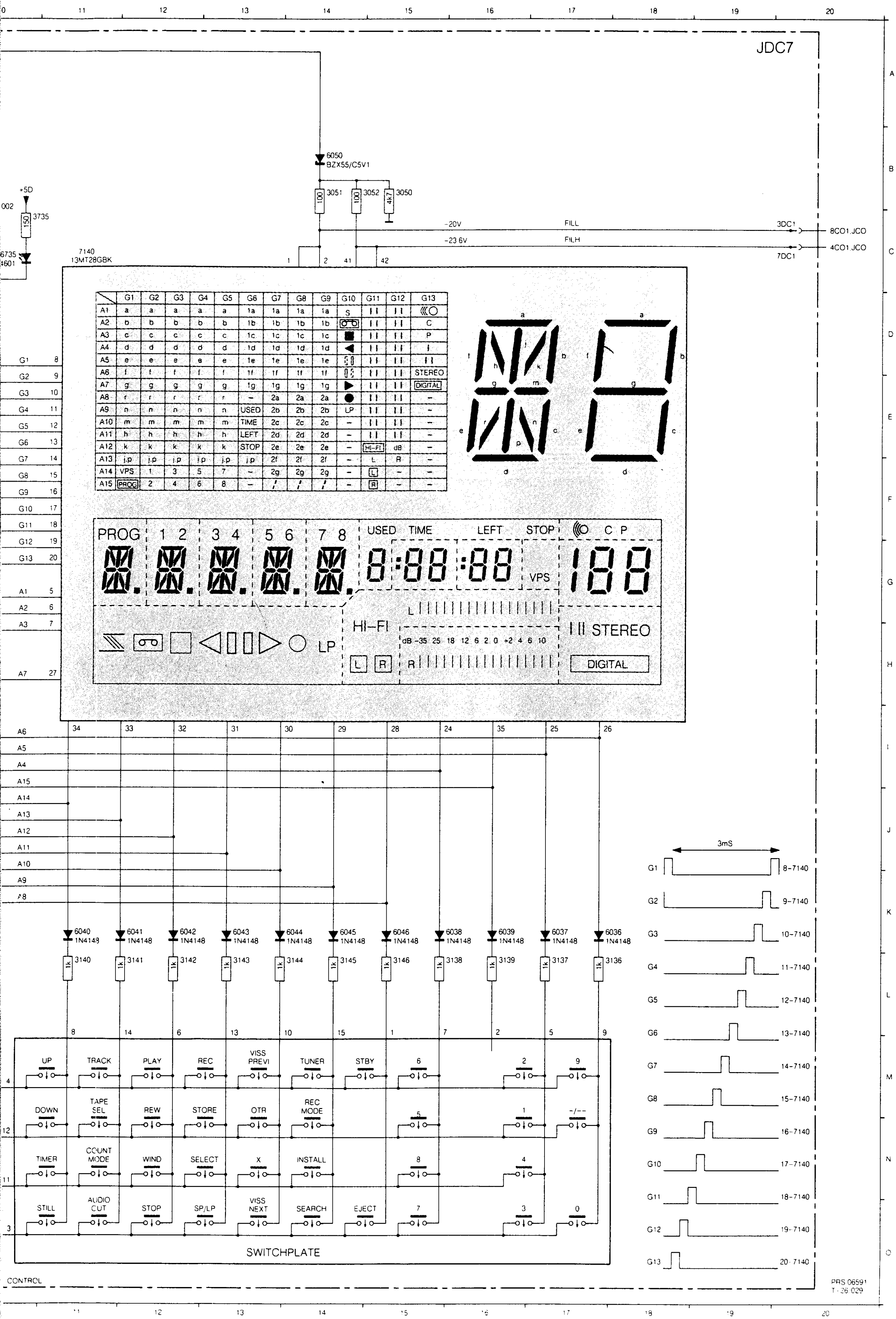

5CO1.JCO
6DC1
-28V
6CO1.JCO
5DC1
+5D
10CO1.JCO
1DC1
3CO1.JCO
8DC1
POR
3030 22k
3031 4k7
7030 BC558B
+4.4V
+5V
3032 4k7
3033 10k
2031 10n
9CO1.JCO
2DC1 SHP
SHARPNESS 3060 10k
2CO1.JCO
9DC1
3081 10
3082 4k7
TSDA
1CO1.JCO
10DC1
3083 10
3084 4k7
TSCL
3AF14.JAF
6DC2
ARLI
3090 4k7
3091 22k
3094 2k7
1AF12.JAF
8DC2 ALLI
3092 4k7
3093 22k
3095 2k7
3005 4k7
5010 22µ
2011 10n
2012 470µ
7101 TMP47C670
RESET
X IN
X OUT
4.19MHz 1002
3735 150
6735 TLHG4601
S1
S0
SCK
K00
HOLD
INT1
K01
P13 R72 R73 T2 T1 G3 RB3 RB2 RB1 RB0 RA3 RA2 RA1 RA0 R33 R32 R31 R30
G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11 G12 G13
IR-REC
3021 15
3020 15
2020 470µ
3029 10k
6020 SD101A
2021 1n5
3022 300k
7120-2A LM393
3023 300k
2022 1n5
7120-2B LM393
3028 10k
3061 10k
3027 10k
3026 10k
+2.5V
+4.9V
+4.7V
INT2
K02 K03 R71 P12 P11 P10 PWM TEST R70 P23 P22
S12 S13 S14 RC3 RC2 RC1 RC0 R53 R52 R51 R50 R43 R42 R41 R40
A1 A2 A3 A7 A6 A5 A4 A15 A14 A13 A12 A11 A10 A9 A8
6047 1N4148
3147 1k
ALHO
ALOH
3067 22k
3068-2A 5k
AUDIO RECORD LEVEL
ARHO
AROH
3066 22k
3068-2B 5k
3099 4k7 *
RSC *
UP
DOWN
TIMER
STILL
2DC5
1DC5 *
6AF14.JAF
3DC2
5070 100µH
2070 1n
8AF14.JAF
1DC2
5072 100µH
2071 1n
7AF14.JAF
2DC2
5071 1µ8
6072 BZX55 C6V8
HEADPHONE-JACK
5AF14.JAF
4DC2
4AF14.JAF
5DC2
2AF14.JAF
7DC2
HEADPHONE VOLUME 3070 5k
5AF12.JAF 2DC3
6AF12.JAF 1DC3
4AF12.JAF 3DC3
2AF12.JAF 5DC3
1AF12.JAF 6DC3
3AF12.JAF 4DC3
to RSC-SWITCH *
5DC5
4DC5
3DC5
3044 2k2
3045 2k2
3046 2k2
3047 2k2
3040 10k
3041 10k
3042 10k
3043 10k

* ONLY IN SETS WITH ROTARY SPEED CONTROL


-28V
+5D
5010
22μ
2011
10n
2012
470μ
7101
TMP47C670
64
1
21
RESET
X IN
X OUT
19
20
4.19MHz
1002
3735
150
6735
TLHG4601
POR
3030
22k
3031
4k7
7030
BC558B
+4.4V
+5V
3032
4k7
3033
10k
2031
10n
3082
4k7
3081
10
TSDA
3084
4k7
3083
10
TSCL
S1
S0
SCK
45
46
47
K00
3005
4k7
HOLD
INT1
22
43
K01
15
14
P13
R72
R73
T2
T1
G3
RB3
RB2
RB1
RB0
RA3
RA2
RA1
RA0
R33
R32
R31
R30
S12
S13
S14
RC3
RC2
RC1
RC0
R53
R52
R51
R50
R43
R42
R41
R40
G1
G2
G3
G4
G5
G6
G7
G8
G9
G10
G11
G12
G13
A1
A2
A3
A7
A6
A5
A4
A15
A14
A13
A12
A11
A10
A9
A8
6050
BZX55/C5V1
3051
100
3052
100
3050
4k7
-20V
-23
7140
13MT28G8K
PROG 1 2 3 4 5 6 7 8
USED TIME
8:88
HI-FI
LP
L R
dB -35 25 18
3029
10k
2021
1n5
6020
SD101A
+4.7V
3022
300k
3023
300k
+4.9V
2022
1n5
7120-2A
LM393
7120-2B
LM393
+2.5V
3028
10k
3061
10k
INT2
41
3027
10k
3026
10k
K02
K03
R71
P12
P11
P10
PWM
TEST
68-2A
AUDIO
RECORD
LEVEL
68-2B
3099 *
4k7
R70
P23
P22
P21
P20
6047
1N4148
3147
1k
RSC *
6040
6041
6042
6043
6044
6045
6046
1N4148
3140
3141
3142
3143
3144
3145
3146
1k
HEADPHONE-JACK
R63
R62
R61
R60
32
3044
3045
3046
3047
2k2
3040
3041
3042
3043
10k
UP
TRACK
PLAY
REC
VISS PREVI
TUNER
STBY
6
DOWN
TAPE SEL
REW
STORE
OTR
REC MODE
5
TIMER
COUNT MODE
WIND
SELECT
X
INSTALL
8
STILL
AUDIO CUT
STOP
SP/LP
VISS NEXT
SEARCH
EJECT
7
SWITCHPLATE

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
A1	a	a	a	a	a	1a	1a	1a	1a	S	II	II	((○
A2	b	b	b	b	b	1b	1b	1b	1b	⊙⊙	II	II	C
A3	c	c	c	c	c	1c	1c	1c	1c	■	II	II	P
A4	d	d	d	d	d	1d	1d	1d	1d	◀	II	II	I
A5	e	e	e	e	e	1e	1e	1e	1e	▯	II	II	II
A6	f	f	f	f	f	1f	1f	1f	1f	▯	II	II	STEREO
A7	g	g	g	g	g	1g	1g	1g	1g	▶	II	II	DIGITAL
A8	r	r	r	r	r	–	2a	2a	2a	●	II	II	–
A9	n	n	n	n	n	USED	2b	2b	2b	LP	II	II	–
A10	m	m	m	m	m	TIME	2c	2c	2c	–	II	II	–
A11	h	h	h	h	h	LEFT	2d	2d	2d	–	II	II	–
A12	k	k	k	k	k	STOP	2e	2e	2e	–	HI-FI	dB	–
A13	j.p	j.p	j.p	j.p	j.p	j.p	2f	2f	2f	–	L	R	–
A14	VPS	1	3	5	7	–	2g	2g	2g	–	L	–	–
A15	PROG	2	4	6	8	–	/	/	/	–	R	–	–

* ONLY IN SETS WITH ROTARY SPEED CONTROL

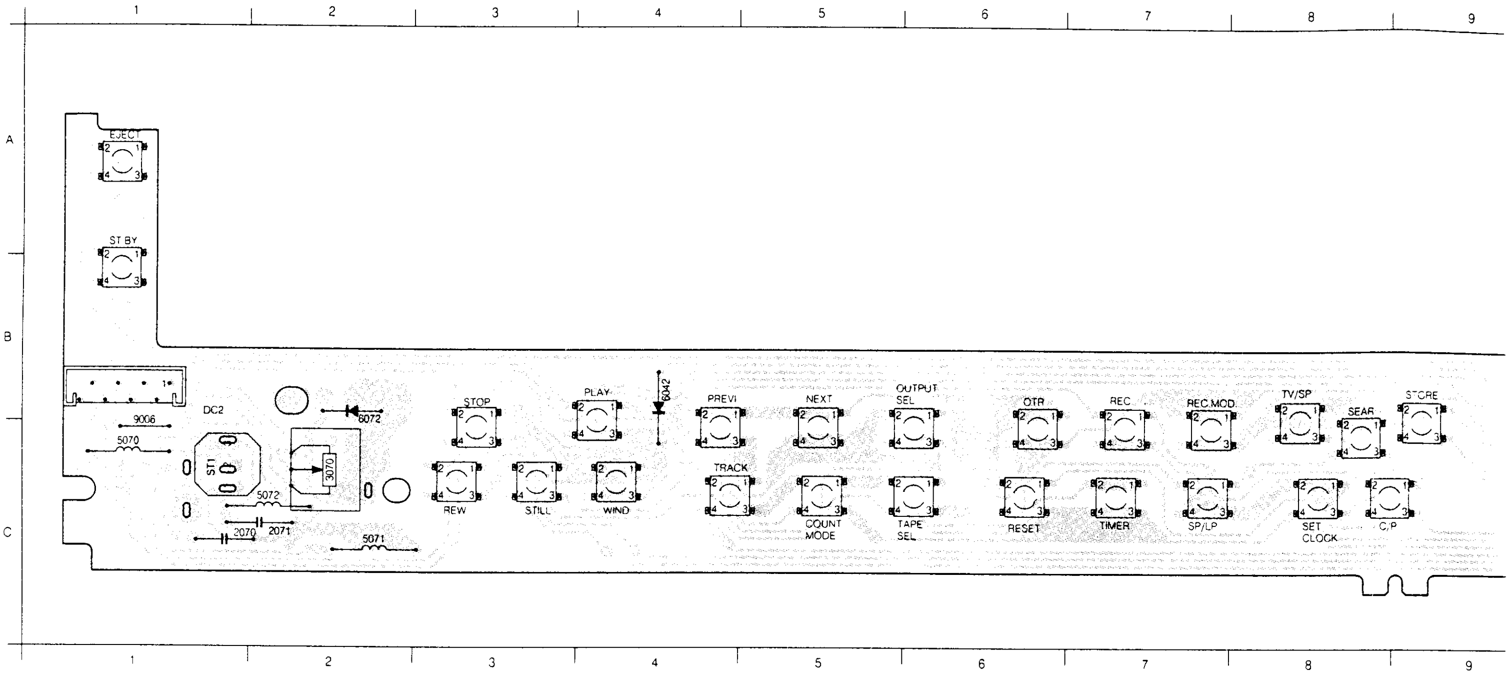

JDC7
6050
BZX55/C5V1
3051 100
3052 100
3050 4k7
+5D
3735 150
6735
7140
13MT28GBK
-20V
FILL
-23.6V
FILH
3DC1
7DC1
8CO1.JCO
4CO1.JCO
G1 8
G2 9
G3 10
G4 11
G5 12
G6 13
G7 14
G8 15
G9 16
G10 17
G11 18
G12 19
G13 20
A1 5
A2 6
A3 7
A7 27
A6
A5
A4
A15
A14
A13
A12
A11
A10
A9
A8
PROG 1 2 3 4 5 6 7 8 USED TIME LEFT STOP C P
VPS
HI-FI
L
R
dB -35 25 18 12 6 2 0 +2 4 6 10
STEREO
DIGITAL
LP
6040 1N4148 3140 1k
6041 1N4148 3141 1k
6042 1N4148 3142 1k
6043 1N4148 3143 1k
6044 1N4148 3144 1k
6045 1N4148 3145 1k
6046 1N4148 3146 1k
6038 1N4148 3138 1k
6039 1N4148 3139 1k
6037 1N4148 3137 1k
6036 1N4148 3136 1k
UP
TRACK
PLAY
REC
VISS PREVI
TUNER
STBY
6
2
9
DOWN
TAPE SEL
REW
STORE
OTR
REC MODE
5
1
-/--
TIMER
COUNT MODE
WIND
SELECT
X
INSTALL
8
4
STILL
AUDIO CUT
STOP
SP/LP
VISS NEXT
SEARCH
EJECT
7
3
0
SWITCHPLATE
CONTROL
3mS
G1 8-7140
G2 9-7140
G3 10-7140
G4 11-7140
G5 12-7140
G6 13-7140
G7 14-7140
G8 15-7140
G9 16-7140
G10 17-7140
G11 18-7140
G12 19-7140
G13 20-7140
PRS 06591
T-26 029

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
A1	a	a	a	a	a	1a	1a	1a	1a	S	I I	I I	(((O
A2	b	b	b	b	b	1b	1b	1b	1b	oo	I I	I I	C
A3	c	c	c	c	c	1c	1c	1c	1c	■	I I	I I	P
A4	d	d	d	d	d	1d	1d	1d	1d	◀	I I	I I	I
A5	e	e	e	e	e	1e	1e	1e	1e	▯▯	I I	I I	I I
A6	f	f	f	f	f	1f	1f	1f	1f	▯▯	I I	I I	STEREO
A7	g	g	g	g	g	1g	1g	1g	1g	▶	I I	I I	DIGITAL
A8	r	r	r	r	r	–	2a	2a	2a	●	I I	I I	–
A9	n	n	n	n	n	USED	2b	2b	2b	LP	I I	I I	–
A10	m	m	m	m	m	TIME	2c	2c	2c	–	I I	I I	–
A11	h	h	h	h	h	LEFT	2d	2d	2d	–	I I	I I	–
A12	k	k	k	k	k	STOP	2e	2e	2e	–	HI-FI	dB	–
A13	j.p	j.p	j.p	j.p	j.p	j.p	2f	2f	2f	–	L	R	–
A14	VPS	1	3	5	7	–	2g	2g	2g	–	L	–	–
A15	PROG	2	4	6	8	–	/	/	/	–	R	–	–

1002	C10
2011	B8
2012	B9
2020	H3
2021	G5
2022	H6
2031	C7
2070	M3
2071	N3
3005	E7
3020	G3
3021	G3
3022	H5
3023	G6
3026	I 4
3027	H4
3028	G7
3029	G4
3030	B5
3031	B5
3032	C6
3033	B7
3040	O6
3041	O6
3042	O7
3043	O7
3044	N6
3045	N6
3046	N7
3047	N7
3050	B15
3051	B14
3052	B14
3060	C2
3061	H7
3066	J3
3067	I 3
3068	J3
3068	K3
3070	O3
3081	C4
3082	C5
3083	D4
3084	D5
3090	E2
3091	E3
3092	F2
3093	F3
3094	E3
3095	F3
3099	K5
3136	L17
3137	L17
3138	L16
3139	L16
3140	L11
3141	L12
3142	L12
3143	L13
3144	L14
3145	L14
3146	L15
3147	L10
3735	C10
5010	A9
5070	M2
5071	N2
5072	M2
6020	H4
6036	K17
6037	K17
6038	K16
6039	K16
6040	K11
6041	K12
6042	K12
6043	K13
6044	K14
6045	K14
6046	K15
6047	K10
6050	B14
6072	N3
6735	C10
7030	B6
7101	B9
7121	H2
7140	C11

Operating panel JDC0

DC1 A12	ST1 C1	2005 C15	2020 B10	2031 C15	2071 C2	3003 C15	3022 B11	3027 B11	3030 B16	3033 B15	3042 C16	3051 A12	3066 C12	3070 C2	3085 A15
DC2 B1	1002 B15	2011 A14	2021 A11	2070 C1	3001 C15	3020 B11	3023 A11	3028 A11	3031 B16	3040 C16	3043 C16	3052 A12	3067 C12	3083 A14	3086 A13
DC3 C13	2004 C15	2012 B16	2022 A11	2071 C2	3002 C15	3021 B11	3026 B11	3029 B11	3032 B16	3041 C16	3050 A12	3061 A12	3068 C11	3084 A13	3090 B14



Einstellungen auf JDC

Aussteuerung der Fluoreszenzmesser (3090 R, 3092 L)

- Signal von 500 mV$_{eff}$ 1 kHz zuführen an Cinch Buchse.
- Recorder in Position "PAUSE, AUDIO EXTERN (E1)".
- Schiebepotentiometer 3068-2A (L) und 3068-2B (R) in die mechanische Mitte.
- 3090 (R) und 3092 (L) so einstellen, daß die Aussteuerung am Fluoreszenzmesser 0 dB anzeigt.

Afregelingen op JDC

1. Uitsturing bargraph display (3090 R, 3092 L)

- Sluit een audio signaal 500 mV$_{eff}$ 1 kHz aan op de cinch pluggen.
- Recorder in positie "PAUSE, AUDIO EXTERN (E1)".
- Plaats schuifpotmeters 3068-2A (L) en 3068-2B (R) in de mechanische middenstand.
- Regel 3090 (R) en 3092 (L) zodanig af dat uitslag op het bargraph display 0 dB is.

Ajuste

1. Mod

- Apliq
- Pong (E1)"
- Emp centr
- Ajust indiq

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8 Cherry Tree Road, Chinnor
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Fax (01844) 352554
email:- sales@mauritron.co.uk

Adjustment on JDC

Adjustment of the deflection of the bargraph
(3090 R, 3092 L)

- Apply a 500 mV$_{rms}$ 1 kHz signal to the cinch connector.
- Recorder in position "PAUSE, AUDIO EXTERN (E1)".
- Slide potentiometers 3068-2A (L) and 3068-2B (R) in the mechanical middle position.
- Adjust 3090 (R) and 3092 (L) so, that the deflection of the bargraph is 0 dB.

Ajustages sur la JDC

1. Saturation de l'affichage du diagramme à barres
(3090 droite, 3092 gauche)

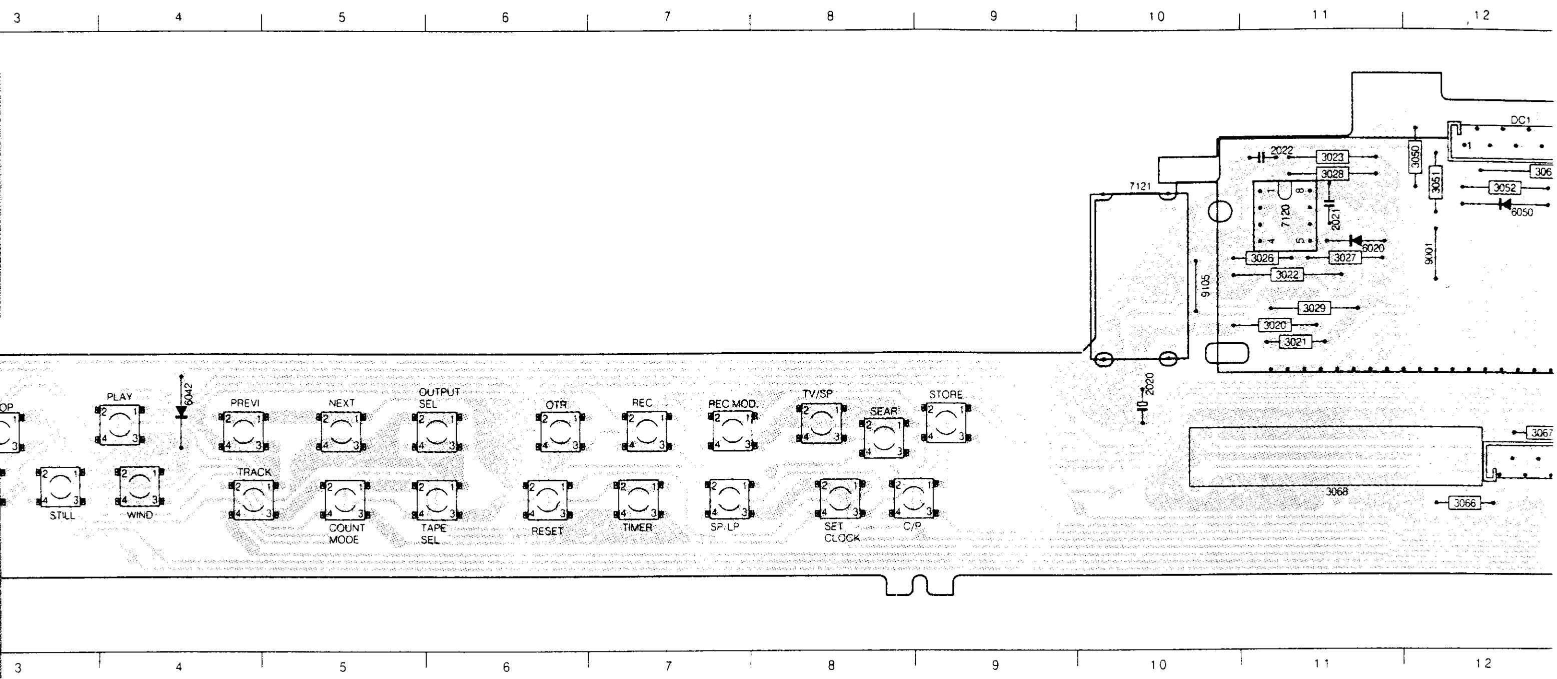
- Appliquer un signal audio de 500 mV$_{eff}$ 1 kHz sur les prises cinch.
- Mettre l'appareil sur "PAUSE, AUDIO EXTERN (E1)"
- Mettre les potentiomètres à coulisse 3068-1A (gauche) et 3068-2B (droite) en position médiane.
- Ajuster 3090 (droite) et 3092 (gauche) pour que la déviation du diagramme à barres à l'afficheur soit de 0 dB.

Regola

1. Mod
(3090 F

- Appli
- Porta EXTE
- Spinc centr
- Rego modu 0 dB.

2071	C2
3001	C15
3002	C15
3003	C15
3020	B11
3021	B11
3022	B11
3023	A11
3026	B11
3027	B11
3028	A11
3029	B11
3030	B16
3031	B16
3032	B16
3033	B15
3040	C16
3041	C16
3042	C16
3043	C16
3050	A12
3051	A12
3052	A12
3061	A12
3066	C12
3067	C12
3068	C11
3070	C2
3083	A14
3084	A13
3085	A15
3086	A13
3090	B14
3091	C14
3092	C14
3093	C14
3094	C14
3095	C14
5010	B15
5070	C1
5071	C2
5072	C2
6020	A11
6040	C14
6041	C14
6042	B4
6043	C13
6044	C13
6045	
6046	
6050	


3
4
5
6
7
8
9
10
11
12
DC1
2022
3023
3028
3050
3051
306
3052
6050
7121
7120
2021
6020
3026
3027
3022
9001
9105
3029
3020
3021
2020
OP
PLAY
6042
PREVI
NEXT
OUTPUT SEL
OTR
REC
REC.MOD.
TV/SP
SEAR
STORE
3067
TRACK
STILL
WIND
COUNT MODE
TAPE SEL
RESET
TIMER
SP/LP
SET CLOCK
C/P
3068
3066

R, 3092 L)

nch Buchse.

ERN (E1)".

8-2B (R) in

e

anzeigt.

h connector.

ERN (E1)".

-2B (R) in the

eflection of

Afregelingen op JDC

1. Uitsturing bargraph display (3090 R, 3092 L)

- Sluit een audio signaal 500 mV$_{eff}$ 1 kHz aan op de cinch pluggen.
- Recorder in positie "PAUSE, AUDIO EXTERN (E1)".
- Plaats schuifpotmeters 3068-2A (L) en 3068-2B (R) in de mechanische middenstand.
- Regel 3090 (R) en 3092 (L) zodanig af dat uitslag op het bargraph display 0 dB is.

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Ajustages sur la JDC

1. Saturation de l'affichage du diagramme à barres (3090 droite, 3092 gauche)

- Appliquer un signal audio de 500 mV$_{eff}$ 1 kHz sur les prises cinch.
- Mettre l'appareil sur "PAUSE, AUDIO EXTERN (E1)"
- Mettre les potentiomètres à coulisse 3068-1A (gauche) et 3068-2B (droite) en position médiane.
- Ajuster 3090 (droite) et 3092 (gauche) pour que la déviation du diagramme à barres à l'afficheur soit de 0 dB.

Ajustes en JDC

1. Modulación de los fluorímetros (3090 R, 3092 L)

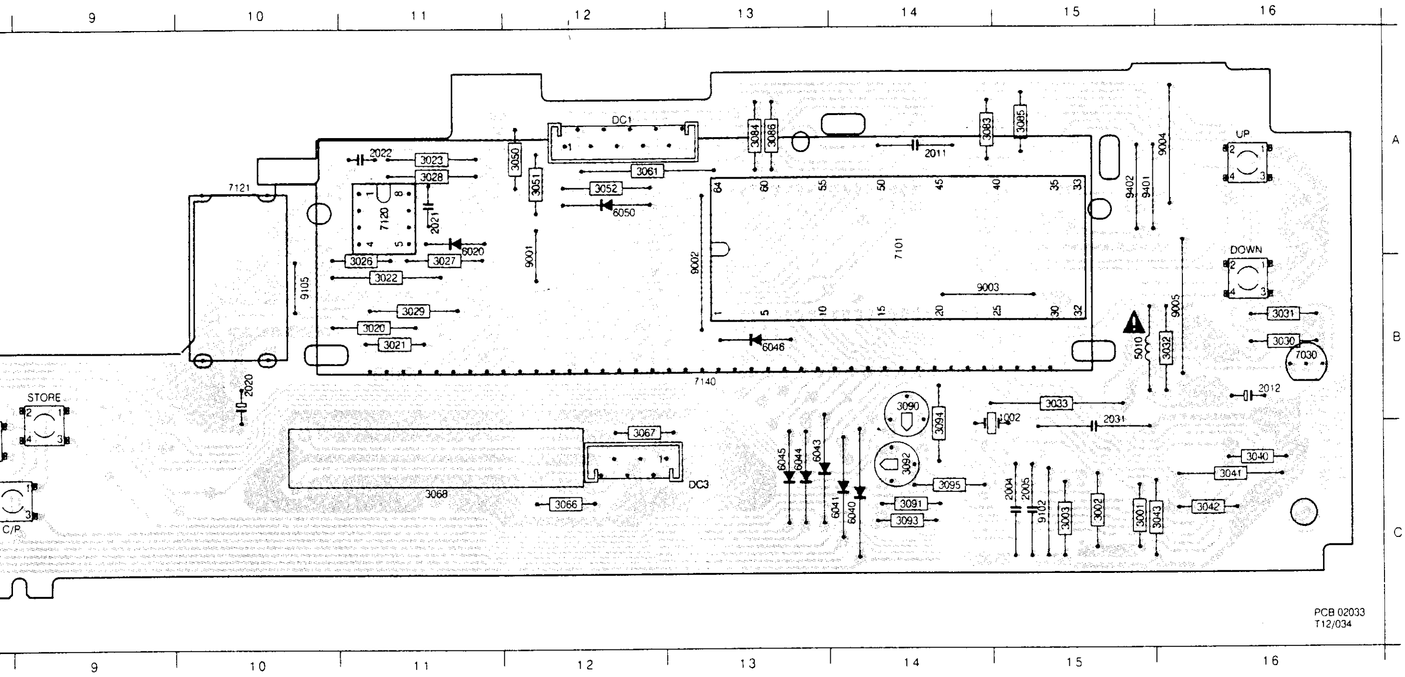
- Aplique una señal de 500 mV$_{eff}$ 1 kHz al clavijero cinch
- Ponga el aparato en posición "PAUSE, AUDIO EXTEF (E1)".
- Empuje el potenciómetro 3068-2A (L) y 3068-2B (R) al centro mecánico.
- Ajuste 3090 (R) y 3092 (L) de manera que el fluorímetı indique 0 dB.

Regolazioni al JDC

1. Modulazione dei misuratori della fluorescenza (3090 R, 3092 L)

- Applicare un segnale di 500 mV$_{eff}$ 1 kHz alla presa cin
- Portare l'apparecchio in posizione "PAUSE, AUDIO EXTERN (E1)".
- Spingere il potenziometro 3068-2A (L) e 3068-2B (R) a centro meccanico.
- Regolare 3090 (R) e 3092(L) in modo che la modulazione sul misuratore della fluorescenza indichi 0 dB.

	C2
	A14
	A13
3085	A15
3086	A13
3090	B14
3091	C14
3092	C14
3093	C14
3094	C14
3095	C14
5010	B15
5070	C1
5071	C2
5072	C2
6020	A11
6040	C14
6041	C14
6042	B4
6043	C13
6044	C13
6045	C13
6046	B13
6050	A12
6072	C2
7030	B16
7101	B14
7120	A11
7121	A10
7140	B13
9001	B12
9002	B13
9003	B14
9004	A16
9005	B16
9006	C1
9102	C15
9105	B10
9401	A15
9402	A15


9
10
11
12
13
14
15
16
A
B
C
DC1
DC3
7121
7120
7101
7140
7030
UP
DOWN
STORE
C/P
3023
3028
3026
3027
3022
3029
3020
3021
3050
3051
3052
3061
3067
3066
3068
3084
3086
3083
3095
3090
3092
3094
3091
3093
3033
3031
3030
3032
3040
3041
3042
3001
3043
3002
3003
2022
2021
2020
2011
2012
2031
2004
2005
6020
6050
6046
6045
6044
6043
6041
6040
5010
9001
9002
9003
9004
9005
9105
9102
9401
9402
PCB 02033
T12/034

Ajustes en JDC

1. Modulación de los fluorímetros (3090 R, 3092 L)

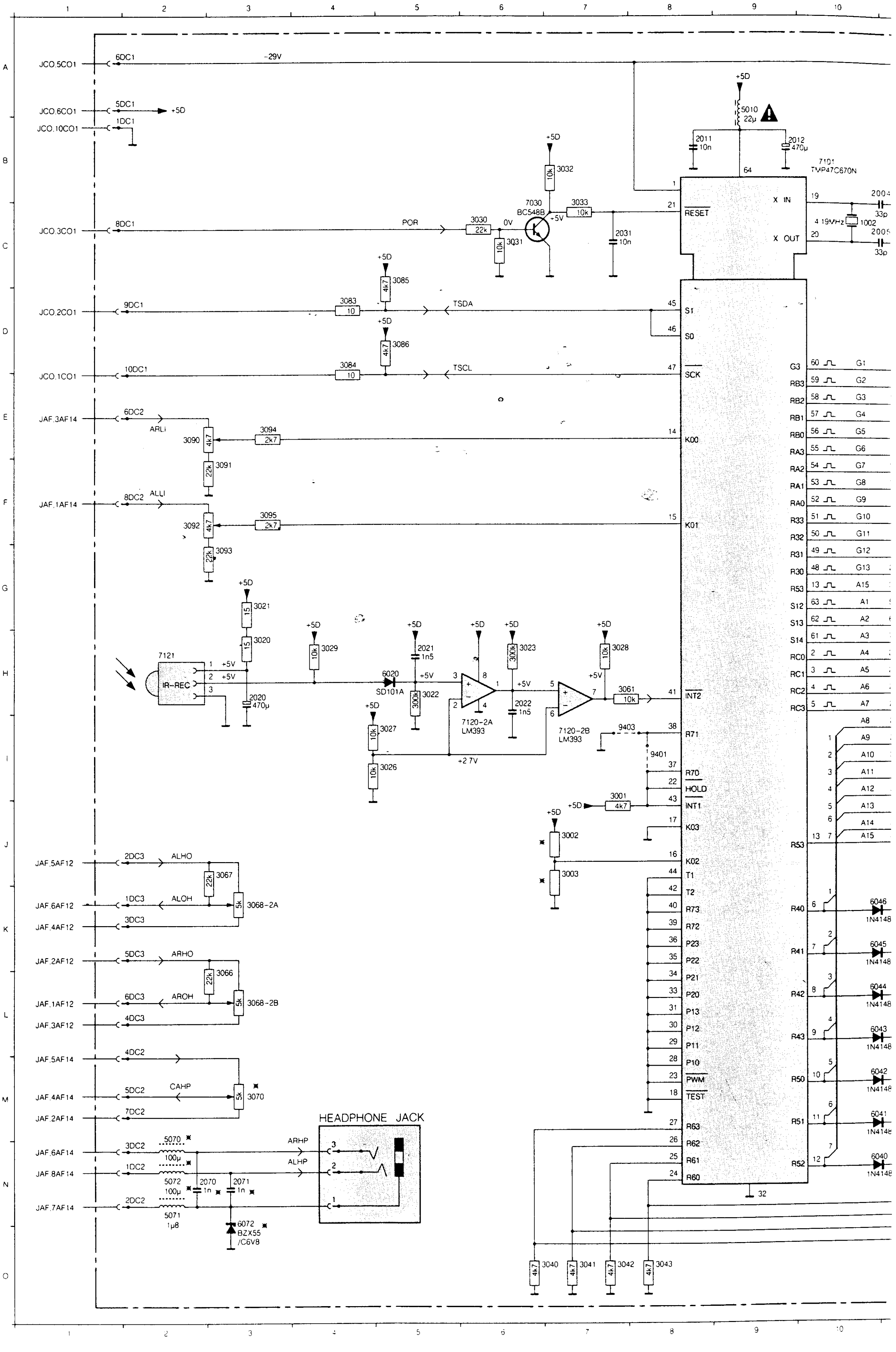
- Aplique una señal de 500 mV$_{eff}$ 1 kHz al clavijero cinch.
- Ponga el aparato en posición "PAUSE, AUDIO EXTERN (E1)".
- Empuje el potenciómetro 3068-2A (L) y 3068-2B (R) al centro mecánico.
- Ajuste 3090 (R) y 3092 (L) de manera que el fluorímetro indique 0 dB.

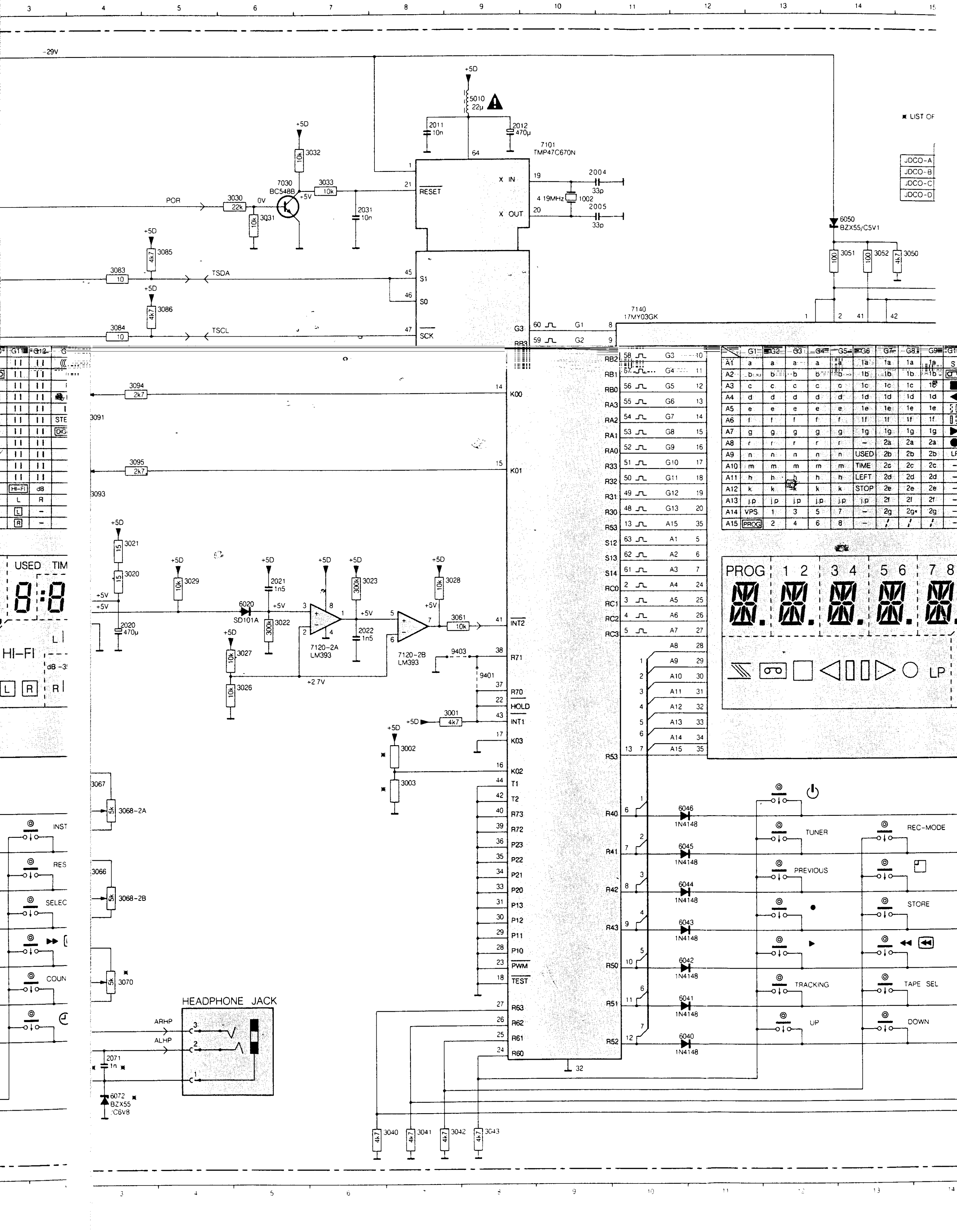
Regolazioni al JDC

1. Modulazione dei misuratori della fluorescenza (3090 R, 3092 L)

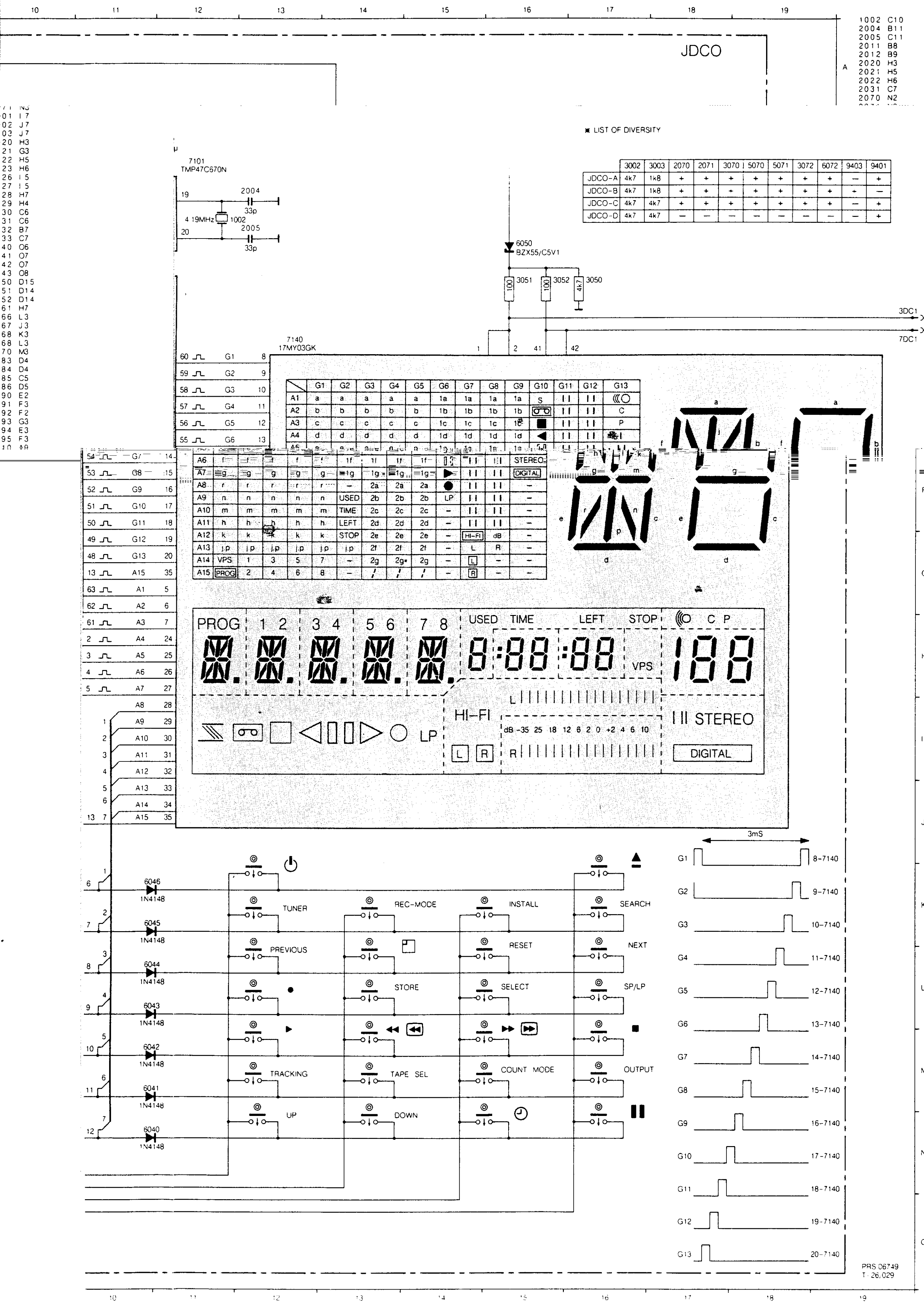
- Applicare un segnale di 500 mV$_{eff}$ 1 kHz alla presa cinch.
- Portare l'apparecchio in posizione "PAUSE, AUDIO EXTERN (E1)".
- Spingere il potenziometro 3068-2A (L) e 3068-2B (R) al centro meccanico.
- Regolare 3090 (R) e 3092(L) in modo che la modulazione sul misuratore della fluorescenza indichi 0 dB.

Operating panel JDC0


JCO.5CO1
6DC1
-29V
JCO.6CO1
5DC1
+5D
JCO.10CO1
1DC1
JCO.3CO1
8DC1
POR
3030 22k
0V
3031 10k
7030 BC548B
+5V
3032 10k
3033 10k
2031 10n
JCO.2CO1
9DC1
3083 10
3085 4k7
TSDA
JCO.1CO1
10DC1
3084 10
3086 4k7
TSCL
JAF.3AF14
6DC2
ARLI
3090 4k7
3094 2k7
3091 22k
JAF.1AF14
8DC2
ALLI
3092 4k7
3095 2k7
3093 22k
3021 15
3020 15
7121
IR-REC
2020 470μ
3029 10k
6020 SD101A
2021 1n5
3022 300k
3027 10k
3026 10k
7120-2A LM393
3023 300k
2022 1n5
+2.7V
7120-2B LM393
3028 10k
3061 10k
9403
9401
3001 4k7
3002
3003
5010 22μ
2011 10n
2012 470μ
7101 TMP47C670N
RESET
X IN
X OUT
4.19MHz 1002
2004 33p
2005 33p
S1
S0
SCK
K00
K01
INT2
R71
R70
HOLD
INT1
K03
K02
T1
T2
R73
R72
P23
P22
P21
P20
P13
P12
P11
P10
PWM
TEST
R63
R62
R61
R60
32
G3
RB3
RB2
RB1
RB0
RA3
RA2
RA1
RA0
R33
R32
R31
R30
R53
S12
S13
S14
RC0
RC1
RC2
RC3
G1 G2 G3 G4 G5 G6 G7 G8 G9 G10 G11 G12 G13
A15 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15
R53
R40
R41
R42
R43
R50
R51
R52
6046 1N4148
6045 1N4148
6044 1N4148
6043 1N4148
6042 1N4148
6041 1N4148
6040 1N4148
JAF.5AF12
2DC3
ALHO
3067 22k
JAF.6AF12
1DC3
ALOH
3068-2A 5k
JAF.4AF12
3DC3
JAF.2AF12
5DC3
ARHO
3066 22k
JAF.1AF12
6DC3
AROH
3068-2B 5k
JAF.3AF12
4DC3
JAF.5AF14
4DC2
JAF.4AF14
5DC2
CAHP
3070 5k
JAF.2AF14
7DC2
JAF.6AF14
3DC2
5070 100μ
JAF.8AF14
1DC2
5072 100μ
2070 1n
2071 1n
JAF.7AF14
2DC2
5071 1μ8
6072 BZX55 /C6V8
HEADPHONE JACK
ARHP
ALHP
3040 4k7
3041 4k7
3042 4k7
3043 4k7
1 2 3 4 5 6 7 8 9 10
A B C D E F G H I J K L M N O


-29V
+5D
5010
22µ
2011
10n
2012
470µ
7101
TMP47C670N
64
1
21
RESET
X IN
X OUT
19
20
2004
33p
2005
33p
4 19MHz
1002
3032
10k
7030
BC548B
3033
10k
+5V
POR
3030
22k
0V
3031
10k
2031
10n
+5D
3085
4k7
3083
10
TSDA
45
S1
46
S0
3086
4k7
3084
10
TSCL
47
SCK
G3
RB3
60
59
G1
G2
8
9
7140
17MY03GK
6050
BZX55/C5V1
3051
100
3052
100
3050
4k7
1
2
41
42
LIST OF
JDCO-A
JDCO-B
JDCO-C
JDCO-D
3094
2k7
14
K00
3091
3095
2k7
15
K01
3093
+5D
3021
15
3020
15
+5V
+5V
2020
470µ
3029
10k
6020
SD101A
2021
1n5
3022
300k
7120-2A
LM393
3023
300k
2022
1n5
7120-2B
LM393
3028
10k
3061
10k
41
INT2
+2.7V
3027
10k
3026
10k
9403
9401
38
R71
37
R70
22
HOLD
43
INT1
3001
4k7
17
K03
3002
3003
16
K02
44
T1
42
T2
40
R73
39
R72
36
P23
35
P22
34
P21
33
P20
31
P13
30
P12
29
P11
28
P10
23
PWM
18
TEST
27
R63
26
R62
25
R61
24
R60
32
RB2
RB1
RB0
RA3
RA2
RA1
RA0
R33
R32
R31
R30
R53
S12
S13
S14
RC0
RC1
RC2
RC3
G3
G4
G5
G6
G7
G8
G9
G10
G11
G12
G13
A15
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
A15
R53
R40
R41
R42
R43
R50
R51
R52
6046
6045
6044
6043
6042
6041
6040
1N4148
TUNER
PREVIOUS
TRACKING
UP
REC-MODE
STORE
TAPE SEL
DOWN
PROG
1 2
3 4
5 6
7 8
LP
USED
TIM
HI-FI
dB
L
R
STE
DIG
INST
RES
SELEC
COUN
3067
3068-2A
5k
3066
3068-2B
3070
HEADPHONE JACK
ARHP
ALHP
2071
1n
6072
BZX55
C6V8
3040
3041
3042
3043
4k7

	G1	G2	G3	G4	G5	G6	G7	G8	G9
A1	a	a	a	a	a	1a	1a	1a	1a
A2	b	b	b	b	b	1b	1b	1b	1b
A3	c	c	c	c	c	1c	1c	1c	1c
A4	d	d	d	d	d	1d	1d	1d	1d
A5	e	e	e	e	e	1e	1e	1e	1e
A6	f	f	f	f	f	1f	1f	1f	1f
A7	g	g	g	g	g	1g	1g	1g	1g
A8	r	r	r	r	r	–	2a	2a	2a
A9	n	n	n	n	n	USED	2b	2b	2b
A10	m	m	m	m	m	TIME	2c	2c	2c
A11	h	h	h	h	h	LEFT	2d	2d	2d
A12	k	k	k	k	k	STOP	2e	2e	2e
A13	j.p	j.p	j.p	j.p	j.p	j.p	2f	2f	2f
A14	VPS	1	3	5	7	–	2g	2g	2g
A15	PROG	2	4	6	8	–	/	/	/


JDCO
7101
TMP47C670N
2004
33p
4 19MHz
1002
2005
33p
6050
BZX55/C5V1
3051
3052
3050
100
100
4k7
3DC1
7DC1
8CO1.JCO
4CO1.JCO
7140
17MY03GK
PROG 1 2 3 4 5 6 7 8
USED TIME LEFT STOP
C P
VPS
HI-FI
L
R
dB -35 25 18 12 6 2 0 +2 4 6 10
STEREO
DIGITAL
LP
6046 1N4148
6045 1N4148
6044 1N4148
6043 1N4148
6042 1N4148
6041 1N4148
6040 1N4148
TUNER
REC-MODE
INSTALL
SEARCH
PREVIOUS
RESET
NEXT
STORE
SELECT
SP/LP
TRACKING
TAPE SEL
COUNT MODE
OUTPUT
UP
DOWN
3mS
G1 8-7140
G2 9-7140
G3 10-7140
G4 11-7140
G5 12-7140
G6 13-7140
G7 14-7140
G8 15-7140
G9 16-7140
G10 17-7140
G11 18-7140
G12 19-7140
G13 20-7140
PRS 06749
T 26,029

* LIST OF DIVERSITY

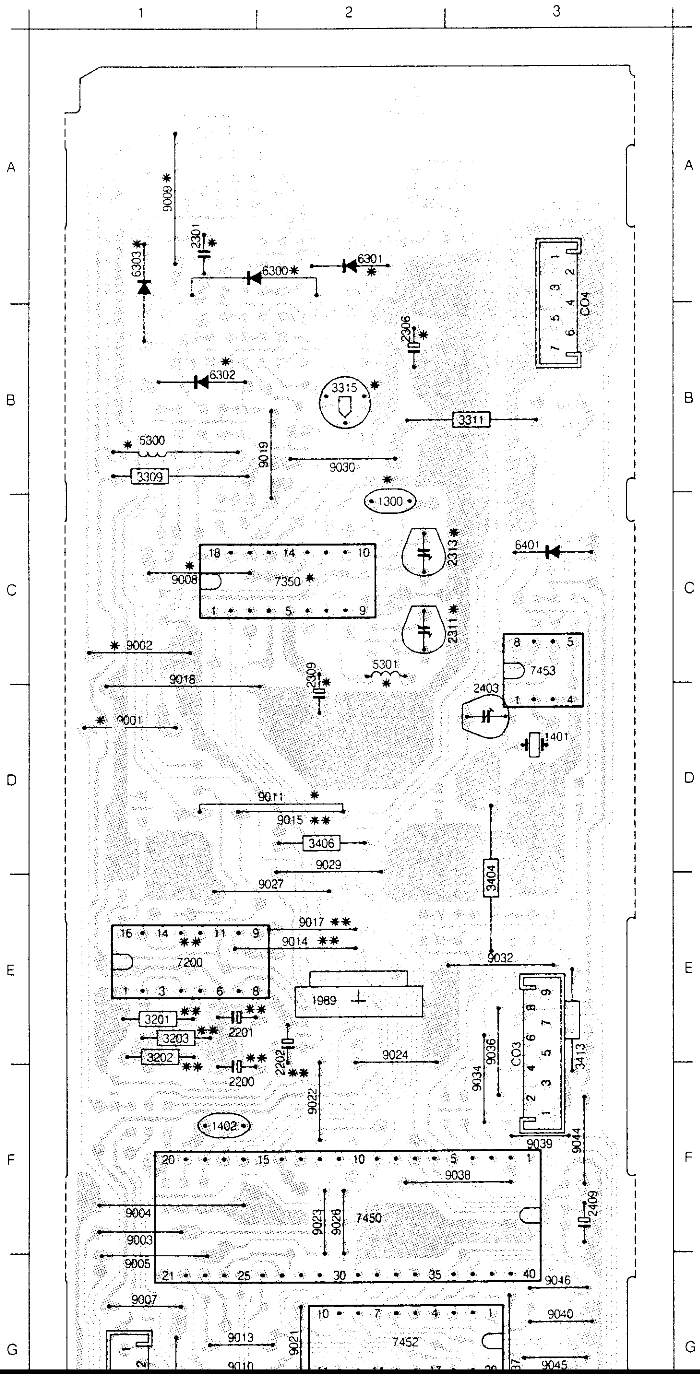
	3002	3003	2070	2071	3070	5070	5071	3072	6072	9403	9401
JDCO-A	4k7	1k8	+	+	+	+	+	+	+	—	+
JDCO-B	4k7	1k8	+	+	+	+	+	+	+	+	—
JDCO-C	4k7	4k7	+	+	+	+	+	+	+	—	+
JDCO-D	4k7	4k7	—	—	—	—	—	—	—	—	+

60 ⎍	G1	8
59 ⎍	G2	9
58 ⎍	G3	10
57 ⎍	G4	11
56 ⎍	G5	12
55 ⎍	G6	13
54 ⎍	G7	14
53 ⎍	G8	15
52 ⎍	G9	16
51 ⎍	G10	17
50 ⎍	G11	18
49 ⎍	G12	19
48 ⎍	G13	20
13 ⎍	A15	35
63 ⎍	A1	5
62 ⎍	A2	6
61 ⎍	A3	7
2 ⎍	A4	24
3 ⎍	A5	25
4 ⎍	A6	26
5 ⎍	A7	27
	A8	28
1	A9	29
2	A10	30
3	A11	31
4	A12	32
5	A13	33
6	A14	34
13 7	A15	35

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11	G12	G13
A1	a	a	a	a	a	1a	1a	1a	1a	S	II	II	((O
A2	b	b	b	b	b	1b	1b	1b	1b	⌼	II	II	C
A3	c	c	c	c	c	1c	1c	1c	1c	■	II	II	P
A4	d	d	d	d	d	1d	1d	1d	1d	◀	II	II	I
A5	e	e	e	e	e	1e	1e	1e	1e	[illegible]	II	II	II
A6	f	f	f	f	f	1f	1f	1f	1f	[illegible]	II	II	STEREO
A7	g	g	g	g	g	1g	1g	1g	1g	▶	II	II	DIGITAL
A8	r	r	r	r	r	–	2a	2a	2a	●	II	II	–
A9	n	n	n	n	n	USED	2b	2b	2b	LP	II	II	–
A10	m	m	m	m	m	TIME	2c	2c	2c	–	II	II	–
A11	h	h	h	h	h	LEFT	2d	2d	2d	–	II	II	–
A12	k	k	k	k	k	STOP	2e	2e	2e	–	HI-FI	dB	–
A13	j.p	j.p	j.p	j.p	j.p	j.p	2f	2f	2f	–	L	R	–
A14	VPS	1	3	5	7	–	2g	2g*	2g	–	L	–	–
A15	PROG	2	4	6	8	–	/	/	/	–	R	–	–

1002	C10
2004	B11
2005	C11
2011	B8
2012	B9
2020	H3
2021	H5
2022	H6
2031	C7
2070	N2
5070	M2
5071	N2
5072	N2
6020	H5
6040	N10
6041	M10
6042	M10
6043	L10
6044	L10
6045	K10
6046	K10
6050	C14
6072	O3
7030	C6
7101	B10
7121	H2
7140	D11
9401	I8
9403	I7

CO1	H2	2403	D3	6301	A2	9008	C1	9025	H2	9044	F3
CO2	G1	2409	F3	6302	B1	9009	A1	9026	F2	9045	G3
CO3	F3	3201	E1	6303	A1	9010	G1	9027	E2	9046	G3
CO4	B3	3202	E1	6401	C3	9011	D2	9029	D2		
1300	C2	3203	E1	7200	E1	9012	H1	9030	B2		
1401	D3	3309	B1	7350	C2	9013	G1	9031	H2		
1402	F1	3311	B3	7450	F2	9014	E2	9032	E3		
1989	E2	3315	B2	7451	H2	9015	D2	9033	H2		
2200	F1	3404	E3	7452	G2	9017	E2	9034	F3		
2201	E1	3406	D2	7453	C3	9018	C1	9036	F3		
2202	F2	3413	F3	9001	D1	9019	B2	9037	G3		
2301	A1	5300	B1	9002	C1	9020	G2	9038	F2		
2306	B2	5301	C2	9003	F1	9021	G2	9039	F3		
2309	D2	5750	G1	9004	F1	9022	F2	9040	G3		
2311	C3	5770	H1	9005	G1	9023	F2	9041	H3		
2313	C3	6300.	A2	9007	G1	9024	E2	9043	H3		


1
2
3
A
B
C
D
E
F
G
9009 *
2301
6303
6300*
6301
2306
CO4
6302
3315
3311
5300
3309
9019
9030
1300
2313
6401
9008
7350
2311
9002
9018
2309
5301
2403
7453
9001
1401
9011
9015
3406
9029
9027
3404
9017
9014
7200
1989
9032
3201
3203
3202
2201
2202
2200
9024
9034
9036
CO3
3413
9022
1402
9039
9044
9038
9004
9003
9005
9023
9028
7450
2409
9046
9007
9040
9013
9021
7452
9010
9045

Einstellungen am JCO

1. Einstellung der "timer-clock"-Frequenz (2403)

- einen Frequenzmesser mittels einer FET-Probe an Pin 2 von IC 7453 schalten
- 2403 so einstellen, daß die Frequenz 32,768 kHz ± 0,12 Hz beträgt

Einstellungen für den OSD Teil

2.1 Einstellung der Schriftposition (2311)

- Kreistestbild am Antenneneingang einspeisen
- Gerät in "STOP" Position bringen und "OSD" Taste auf der Fernbedienung drücken
- mit 2311 die Schrift so einstellen, daß am linken und rechten Bildschirmrand der gleiche Abstand ist.

2.2 Einstellung des Video-Ausgangspegels (3315)

- kein Signal am Antenneneingang
- Videoausgang an der Scartbuchse mit 75 Ω abschließen "TIMER" Taste drücken
- mit 3315 das Videosignal an der Scartbuchse auf 0,85 V mit dem Oszilloskop einstellen

2.3 Einstellung des Chroma-Hilfsträgers (2313)

- einen Frequenzmesser mittels einer FET-Probe an Pin 11 von IC 7350 schalten
- 2313 so einstellen, daß die Frequenz 17,7345MHz ± 100Hz beträgt

Settings of the JCO

1. Setting of the "timer clock" frequency (2403)

- Connect a frequency meter to the pin 2 of IC 7453 by means of an FET sample
- Set 2403 so that the frequency is 32,768 kHz ± 0,12 Hz

Setting of the OSD-part

2.1 Setting of the writing position (2311)

- Connect a circle test pattern to the aerial input
- Put the unit in position "STOP" and press "OSD" key onremote control
- Adjust writing with 2311 so that the margin is the samet the left and right edge of the screen.

2.2 Setting the video output level (3315)

- No signal at the aerial input
- Terminate video output at the Scart jack with 75 Ω
- Press "TIMER" key
- Set the video signal at the Scart jack to 0.85 V with 3315 with the aid of the oscilloscope

2.3 Setting the chroma auxiliary carrier (2313)

- Connect a frequency meter to pin 11 of IC 7350 by means of an FET sample
- et 2313 so that the frequency is 17.7345 MHz ± 100 Hz

Instellingen op de JCO

1. Instelling van de "timer-clock"-frequentie (2403)

- een frequentiemeter via een FET-testpen op pin 2 van IC 7453 aansluiten
- 2403 zodanig instellen dat de frequentie 32,768kHz ± 0,12 Hz bedraagt

Instellingen or het OSD-gedeelte

2.1 Instelling van de tekstpositie (2311)

- cirkelvormig testbeeld aan de antenne-ingang ingeven
- toestel op "STOP" schakelen en de "OSD"-toets op de afstandsbediening indrukken
- met behulp van 2311 de tekst zodanig instellen dat aan de linker en rechter beeldschermrand dezelfde afstand is

2203	D3	2411	F3	3314	B3	3403	C1	3811	E1
2302	A3	2412	H3	3316	A3	3405	C1	3812	B3
2304	A2	2413	F1	3316	D3	3407	E1	3815	F3
2305	B2	3200	F3	3317	B3	3408	E1	7300	A2
2307	B3	3204	E2	3318	B2	3409	F2	7301	A1
2308	B2	3205	G3	3319	B2	3410	F1	7302	A2
2310	C2	3300	A2	3320	B3	3411	E1	7303	B3
2312	C2	3301	A2	3321	C3	3412	F1	7304	C3
2314	C2	3302	A2	3322	B3	3800	G1	7305	B2
2315	C2	3303	E3	3323	B3	3801	H3	7306	C3
2316	B3	3305	B3	3324	C3	3803	E1	7308	A3
2317	B3	3306	A2	3330	A3	3804	F3	7401	C1
2404	D2	3307	A3	3331	A3	3805	F3		
2405	H2	3308	B3	3332	A3	3806	E1		
2406	G1	3312	B3	3401	D1	3807	B3		
2410	F3	3313	B3	3402	C1	3808	F3		

D

chage écran (2311)
ur l'entrée d'antenne
on "STOP" et appuyer
lécommande
elle façon qu'il y ait
bord droit et sur le bord
le 2311

e vidéo (3315)
sur l'entrée d'antenne
se SCART avec 75 Ω
ER"
e signal vidéo sur la
c l'oscilloscope)

ur auxiliaire Chroma (2313)
au moyen d'une sonde effet de
C7350
équence s'élève à 17,7345MHz ±

del "timer-clock" (reloj-

uencia, por medio de una
nexión 2 del IC 7453
e la frecuencia sea de 32,768kHz ±

e escritura (2311)
de prueba a la entrada de antena
n de "STOP" y oprimir la tecla

ra de forma que quede el mismo
izquierdo de la pantalla

da de video (3315)
de antena
n el conector "Scart" con 75 Ω

e video en el conector a 0,85 V con

auxiliar de croma (2313)
uencia mediante una sonda de
de IC 7350
e la frecuencia sea de

a frequenza d'orologio (2403)
uenzimetro a Pin 2 di IC 7453 con l'aiuto di un
i i
modo che la frequenza sia 32,768kHz ±

parte OSD

lla posizione di scrittura (2311)
nale test con cerchio all'entrata d'antenna
chio in posizione "STOP" e premere il tasto
mando
ra con 2311 in modo che i margini destro e
ermo abbiano la stessa distanza

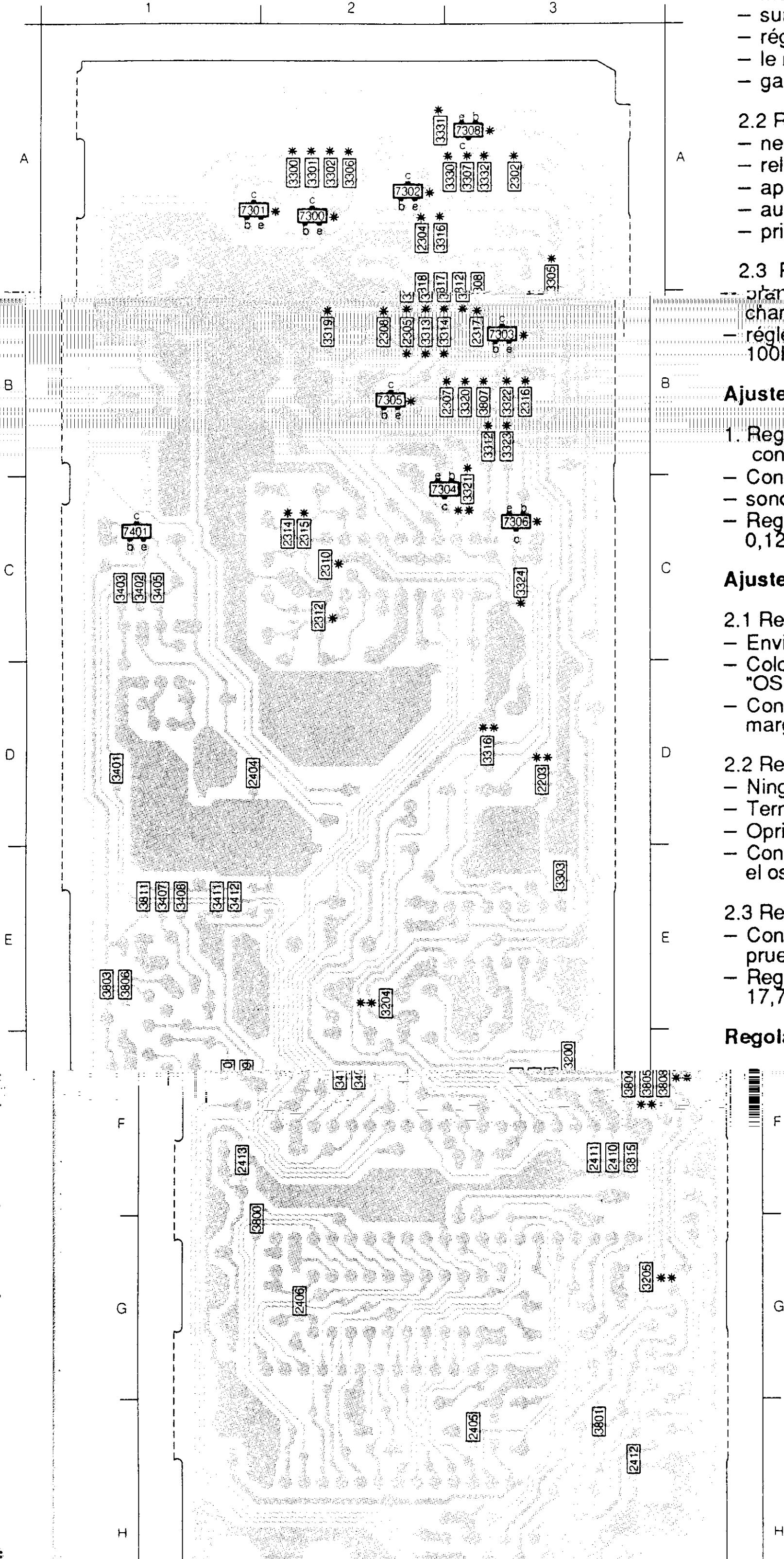
l livello d'uscita video (3315)
ssun segnale all'entrata d'antenna
video alla presa Euro con 75 Ω
TIMER"
5 il segnale video alla presa Euro a 0,85 V
illoscopio

lla portante ausiliaria croma (2313)
un separatore FET un frequenzimetro a Pin 11

modo che la frequenza sia 17,7345MHz ±

Ajustages sur la JCO

1. Réglage de la fréquence du "TIMER-CLOCK" (2403)
- brancher un fréquencemètre au moyen d'une sonde effet de champ sur la broche 2 de l'IC7453
- régler 2403 de telle façon que la fréquence s'élèveNRà 32,768kHz ± 0,12Hz



Ajustages pour la partie OSI

2.1 Réglage de la position affic
- appliquer une mire de test s
- mettre l'appareil sur la posit
- sur la touche "OSD" de la té
- régler l'affichage écran de te
- le même espacement sur le
- gauche de l'écran, à l'aide c

2.2 Réglage du signal de sorti
- ne pas appliquer de signal s
- relier la sortie image à la pri
- appuyer sur la touche "TIME
- au moyen de 3315, ajuster l
- prise SCART à 0,85 V (avec

2.3 Réglage du courant porte
- brancher un fréquencemètre
champ sur le broche 11 de l'IC
- régler 2313 de façon que la fr
100Hz

Ajustes del JCO

1. Regulación de la frecuencia c
contador) (2403)
- Conectar un medidor de frecu
- sonda de prueba FET a la co
- Regular el 2403 de forma que
0,12 Hz

Ajustes del circuito OSD

2.1 Regulación de la posición de
- Enviar una imagen de círculo
- Colocar el aparato en posició
"OSD" del mando a distancia
- Con el 2311 regular la escritu
margen en el lado derecho e

2.2 Regulación del nivel de salid
- Ninguna señal en la entrada d
- Terminar la salida de video e
- Oprimir la tecla de "TIMER"
- Con 3315, regular la señal de
el osciloscopio.

2.3 Regulación de la portadora
- Conectar un medidor de frecu
prueba FET a la conexión 11
- Regular el 2313 de forma que
17,7345 MHz ± 100 Hz

Regolazioni al JCO

1. Regolazione del
- collegare un freq
separatore FET
- regolare 2403 in
0,12 Hz

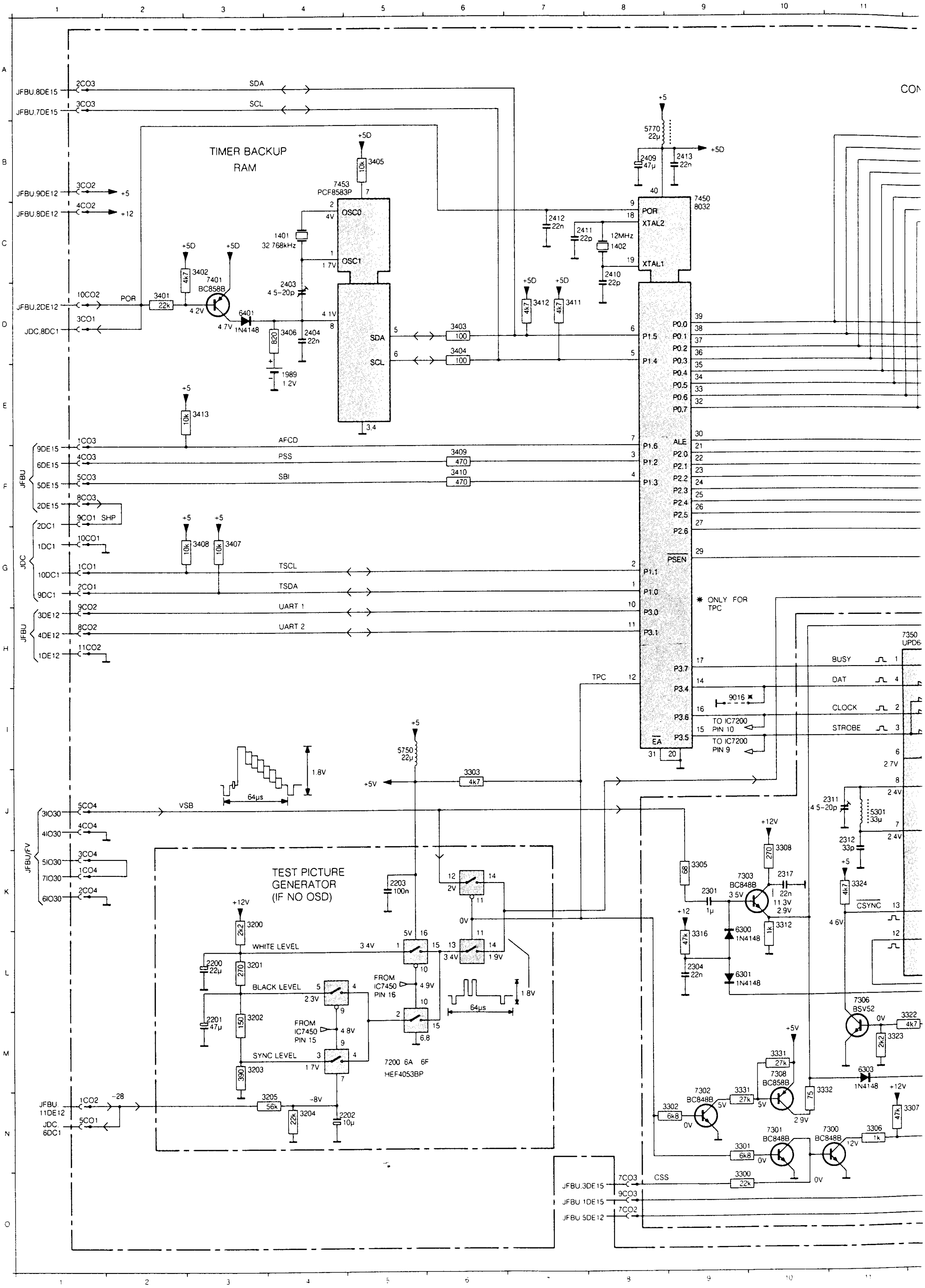
Regolazioni per la

2.1 Regolazione de
- applicare un segn
- portare l'apparecc
"OSD" sul telecor
- regolare la scrittu
sinistro dello sche

2.2 Regolazione de
- non applicare ne
- chiudere l'uscita
- premere il tasto "
- regolare con 331
misurati con l'osc

2.3 Regolazione de
- collegare tramite
di IC 7350
- regolare 2313 in
100Hz

Control board JCO/OSD


1
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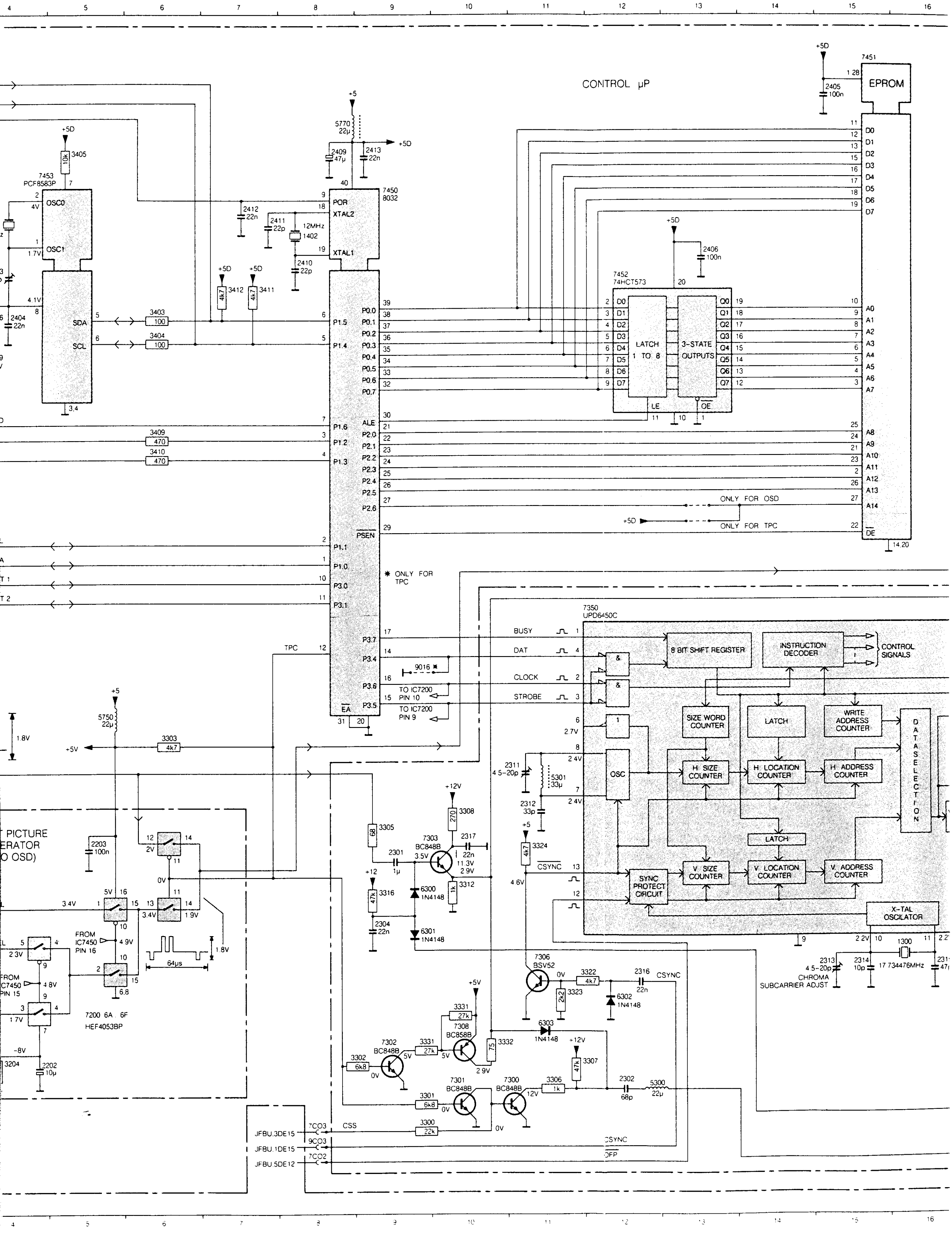
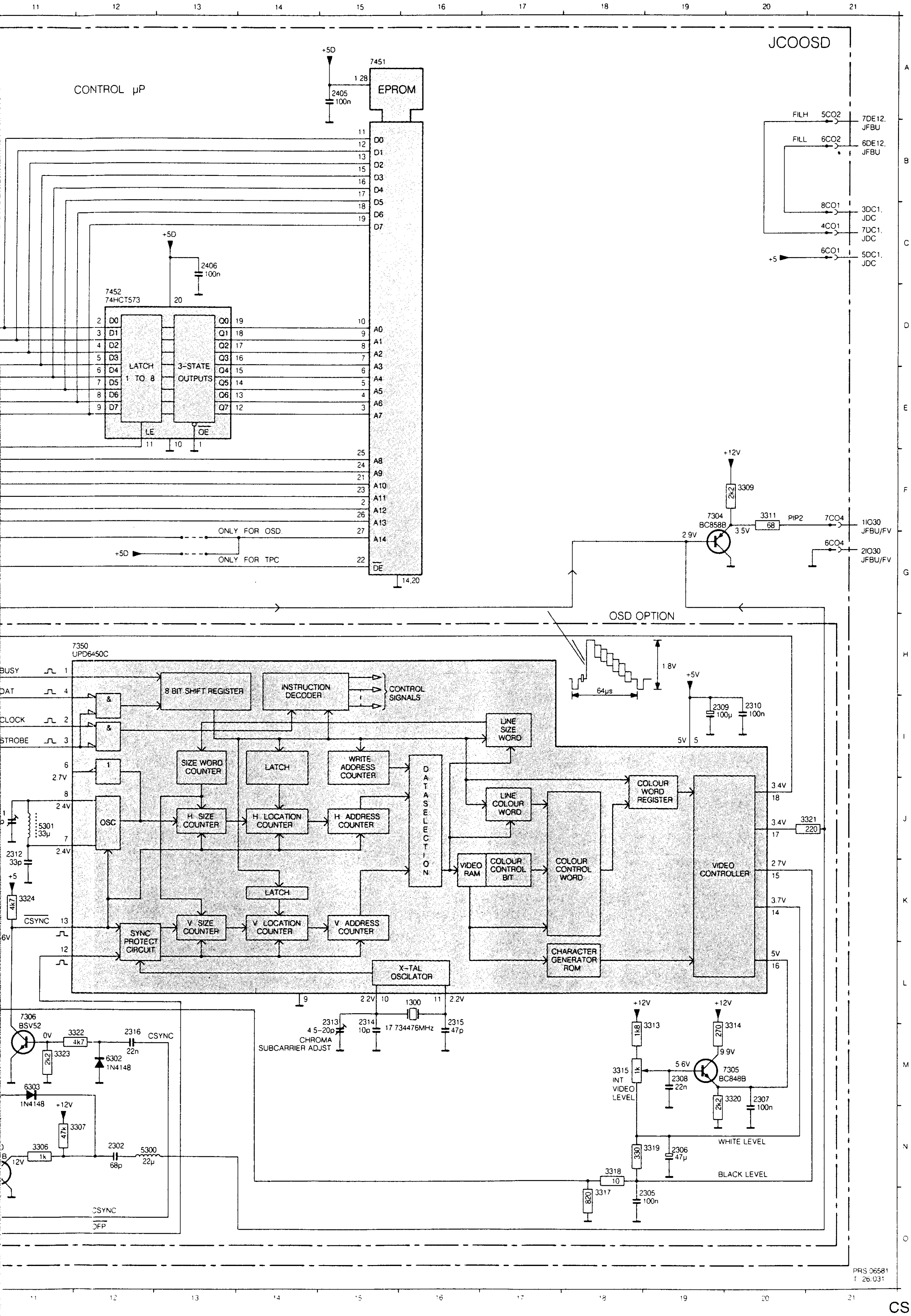
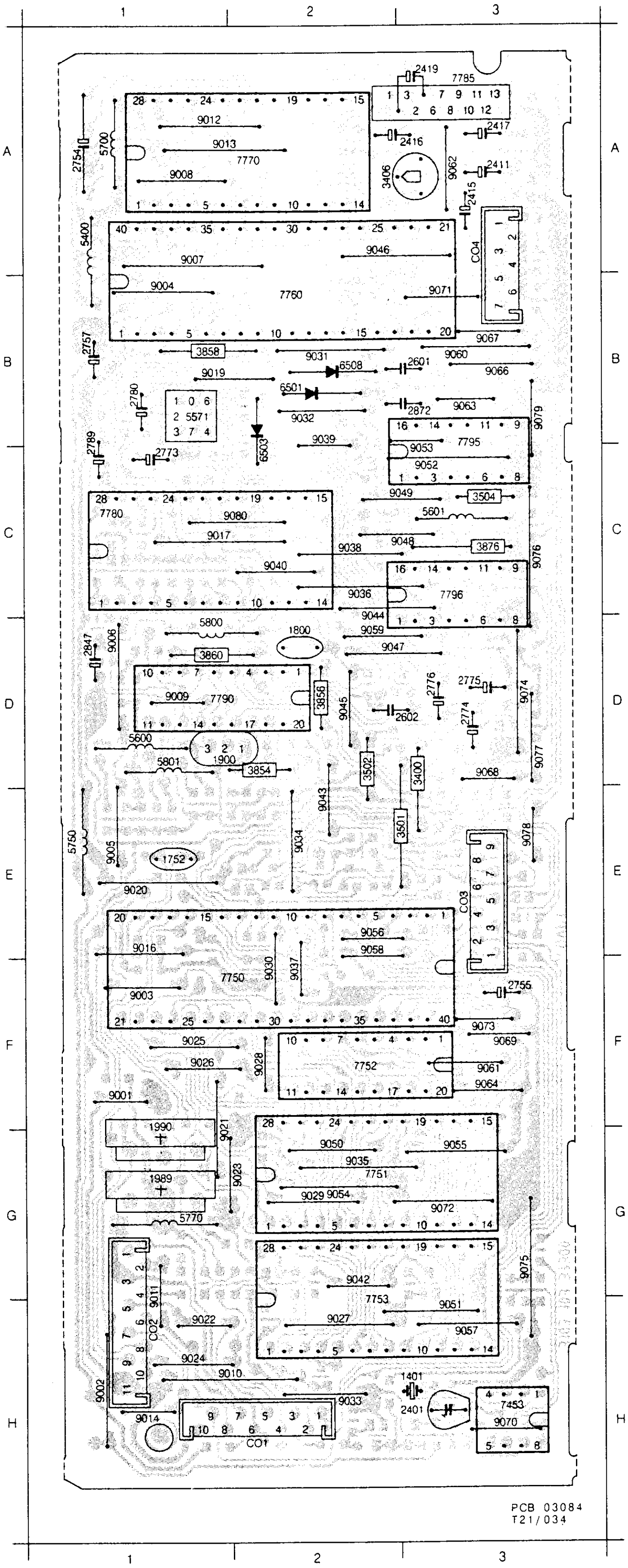
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
JFBU.8DE15
2CO3
SDA
JFBU.7DE15
3CO3
SCL
CON
+5
5770
22μ
2409
47μ
2413
22n
+5D
TIMER BACKUP
RAM
+5D
3405
10k
7453
PCF8583P
JFBU.9DE12
3CO2
+5
JFBU.8DE12
4CO2
+12
7450
8032
40
9
POR
18
XTAL2
2412
22n
2411
22p
12MHz
1402
19
XTAL1
2410
22p
OSC0
4V
1401
32 768kHz
OSC1
1 7V
+5D
+5D
3402
4k7
7401
BC858B
2403
4 5-20p
+5D
+5D
3412
4k7
3411
4k7
JFBU.2DE12
10CO2
POR
3401
22k
4 2V
4 7V
6401
1N4148
4 1V
3406
820
2404
22n
1989
1.2V
JDC.8DC1
3CO1
SDA
SCL
3403
100
3404
100
P1.5
P1.4
P0.0
P0.1
P0.2
P0.3
P0.4
P0.5
P0.6
P0.7
39
38
37
36
35
34
33
32
3,4
+5
3413
10k
JFBU
9DE15
1CO3
AFCD
P1.6
ALE
30
6DE15
4CO3
PSS
3409
470
P1.2
P2.0
21
5DE15
5CO3
SBI
3410
470
P1.3
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
22
23
24
25
26
27
2DE15
8CO3
9CO1 SHP
JDC
2DC1
1DC1
10CO1
+5
+5
3408
10k
3407
10k
PSEN
29
10DC1
1CO1
TSCL
P1.1
9DC1
2CO1
TSDA
P1.0
JFBU
3DE12
9CO2
UART 1
P3.0
✱ ONLY FOR
TPC
4DE12
8CO2
UART 2
P3.1
1DE12
11CO2
7350
UPD6
TPC
12
P3.7
17
BUSY
P3.4
14
DAT
9016 ✱
16
P3.6
CLOCK
TO IC7200
PIN 10
15
STROBE
EA
P3.5
TO IC7200
PIN 9
31
20
+5
5750
22μ
1.8V
64μs
+5V
3303
4k7
6
2 7V
8
2 4V
2311
4 5-20p
5301
33μ
7
2 4V
2312
33p
JFBU/FV
3IO30
5CO4
VSB
4IO30
4CO4
5IO30
3CO4
7IO30
1CO4
6IO30
2CO4
TEST PICTURE
GENERATOR
(IF NO OSD)
2203
100n
12
2V
14
11
0V
+12V
3308
270
3305
68
7303
BC848B
3 5V
2317
22n
11 3V
2 9V
2301
1μ
+5
3324
4k7
CSYNC
13
4 6V
+12V
3200
2k2
+12
3316
47k
6300
1N4148
3312
1k
WHITE LEVEL
3 4V
5V
16
15
13
3 4V
11
14
1 9V
10
2304
22n
6301
1N4148
12
2200
22μ
3201
270
BLACK LEVEL
5
4
2 3V
9
FROM
IC7450
PIN 16
4 9V
10
1 8V
64μs
7306
BSV52
0V
3322
4k7
3323
2k2
2201
47μ
3202
150
FROM
IC7450
PIN 15
4 8V
9
2
15
6.8
+5V
3331
27k
SYNC LEVEL
3
4
1 7V
7
7200 6A 6F
HEF4053BP
7308
BC858B
6303
1N4148
+12V
3203
390
JFBU
11DE12
1CO2
-28
3205
56k
-8V
3302
6k8
7302
BC848B
0V
5V
3331
27k
5V
75
3332
2 9V
3307
47k
JDC
6DC1
5CO1
3204
22k
2202
10μ
7301
BC848B
3301
6k8
0V
7300
BC848B
12V
3306
1k
JFBU.3DE15
7CO3
CSS
3300
22k
0V
JFBU 1DE15
9CO3
JFBU 5DE12
7CO2


CONTROL µP
7451
EPROM
+5D
2405 100n
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
OE
14.20
7450
8032
POR
XTAL2
XTAL1
P1.5
P1.4
P0.0
P0.1
P0.2
P0.3
P0.4
P0.5
P0.6
P0.7
ALE
P1.6
P1.2
P1.3
P2.0
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
PSEN
P1.1
P1.0
P3.0
P3.1
P3.7
P3.4
P3.6
P3.5
EA
5770 22µ
2409 47µ
2413 22n
+5D
2412 22n
2411 22p
12MHz 1402
2410 22p
7453
PCF8583P
OSC0
OSC1
SDA
SCL
3405 10k
2404 22n
3403 100
3404 100
3412 4k7
3411 4k7
3409 470
3410 470
7452
74HCT573
LATCH 1 TO 8
3-STATE OUTPUTS
LE
OE
2406 100n
ONLY FOR OSD
ONLY FOR TPC
* ONLY FOR TPC
TPC
9016 *
TO IC7200 PIN 10
TO IC7200 PIN 9
7350
UPD6450C
BUSY
DAT
CLOCK
STROBE
8 BIT SHIFT REGISTER
INSTRUCTION DECODER
CONTROL SIGNALS
SIZE WORD COUNTER
LATCH
WRITE ADDRESS COUNTER
DATA SELECTION
OSC
H SIZE COUNTER
H LOCATION COUNTER
H ADDRESS COUNTER
LATCH
SYNC PROTECT CIRCUIT
V SIZE COUNTER
V LOCATION COUNTER
V ADDRESS COUNTER
X-TAL OSCILATOR
CSYNC
2311 4.5-20p
5301 33µ
2312 33p
3324 4k7
1300
17.734476MHz
2313 4.5-20p
2314 10p
CHROMA SUBCARRIER ADJST
5750 22µ
3303 4k7
+5V
1.8V
PICTURE
ERATOR
O OSD)
2203 100n
7200 6A 6F
HEF4053BP
FROM IC7450 PIN 16
FROM IC7450 PIN 15
64µs
2202 10µ
3204
3305 68
2301 1µ
7303 BC848B
3308 270
2317 22n
3312 1k
3316 47k
2304 22n
6300 1N4148
6301 1N4148
7306 BSV52
3322 4k7
3323 2k2
2316 22n
6302 1N4148
6303 1N4148
7308 BC858B
3331 27k
7302 BC848B
3302 6k8
3332 75
7301 BC848B
7300 BC848B
3301 6k8
3306 1k
3307 47k
2302 68p
5300 22µ
3300 22k
CSS
JFBU.3DE15
JFBU.1DE15
JFBU.5DE12
7CO3
9CO3
7CO2
CSYNC
OFP
+12V
-8V
4
5
6
7
8
9
10
11
12
13
14
15
16


11
12
13
14
15
16
17
18
19
20
21
JCOOSD
CONTROL µP
+5D
7451
EPROM
2405 100n
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
A13
A14
OE
14,20
2406 100n
7452 74HCT573
LATCH 1 TO 8
3-STATE OUTPUTS
LE
ONLY FOR OSD
ONLY FOR TPC
FILH 5CO2
FILL 6CO2
7DE12, JFBU
6DE12, JFBU
8CO1
4CO1
6CO1
3DC1, JDC
7DC1, JDC
5DC1, JDC
+5
+12V
3309 2k2
7304 BC858B
3311 68
PIP2
7CO4
6CO4
11O30 JFBU/FV
21O30 JFBU/FV
2.9V
3.5V
OSD OPTION
1.8V
64µs
7350 UPD6450C
BUSY
DAT
CLOCK
STROBE
&
8 BIT SHIFT REGISTER
INSTRUCTION DECODER
CONTROL SIGNALS
LINE SIZE WORD
SIZE WORD COUNTER
LATCH
WRITE ADDRESS COUNTER
DATA SELECTION
OSC
H. SIZE COUNTER
H. LOCATION COUNTER
H. ADDRESS COUNTER
LINE COLOUR WORD
COLOUR WORD REGISTER
VIDEO RAM
COLOUR CONTROL BIT
COLOUR CONTROL WORD
VIDEO CONTROLLER
SYNC PROTECT CIRCUIT
V. SIZE COUNTER
V. LOCATION COUNTER
V. ADDRESS COUNTER
CHARACTER GENERATOR ROM
X-TAL OSCILATOR
CSYNC
2309 100µ
2310 100n
+5V
3.4V
2.7V
3.7V
5V
3321 220
5301 33µ
2312 33p
3324 4k7
2313 4.5–20p
CHROMA SUBCARRIER ADJUST
2314 10p
1300 17.734476MHz
2315 47p
2.2V
7306 BSV52
0V
3322 4k7
3323 2k2
2316 22n
6302 1N4148
6303 1N4148
3307 47k
3306 1k
2302 68p
5300 22µ
12V
CSYNC
DFP
3313 1k8
3314 270
3315 1k
INT VIDEO LEVEL
5.6V
9.9V
7305 BC848B
2308 22n
3320 2k2
2307 100n
WHITE LEVEL
3319 330
2306 47µ
3318 10
BLACK LEVEL
3317 820
2305 100n
PRS 06581
T 26.031
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

1300	L16
1401	C4
1402	C8
2200	L3
2201	M3
2202	N4
2203	K5
2301	K9
2302	N12
2304	L9
2305	O18
2306	N19
2307	M20
2308	M19
2309	I19
2310	I20
2311	J10
2312	J11
2313	M15
2314	M15
2315	M16
2316	M12
2317	K10
2403	D4
2404	D4
2405	A15
2406	C13
2409	B8
2410	C8
2411	C7
2412	C7
2413	B9
3200	K3
3201	L3
3202	M3
3203	M3
3204	N4
3205	N4
3300	O9
3301	N9
3302	M9
3303	J6
3305	K9
3306	N11
3307	N11
3308	K10
3309	F20
3311	F20
3312	L10
3313	M19
3314	M20
3315	M18
3316	L9
3317	O18
3318	N18
3319	N19
3320	M20
3321	J21
3322	M12
3323	M11
3324	K11
3330	M9
3331	M10
3332	N10
3401	D2
3402	C3
3403	D6
3404	D6
3405	B5
3406	D4
3407	G3
3408	G3
3409	F6
3410	F6
3411	D7
3412	D7
3413	E3
5300	N12
5301	J11
5750	I5
5770	B8
6300	L9
6301	L9
6302	M12
6303	M12
6401	D3
7200	M5
7300	N11
7301	N10
7302	M9
7303	K10
7304	F20
7305	M20
7306	L11
7308	M10
7350	H11
7401	C3
7450	B9
7451	A15
7452	D12
7453	B4
9016	I9



CO1	H2
CO2	H1
CO3	E3
CO4	A3
1401	H2
1752	E1
1800	D2
1900	D1
1989	G1
1990	G1
2401	H2
2411	A3
2415	A3
2416	A3
2417	A3
2419	A3
2601	B3
2602	D2
2754	A1
2755	F3
2757	B1
2773	C1
2774	D3
2775	D3
2776	D3
2780	B1
2789	C1
2847	D1
2872	B3
3400	D3
3406	A2
3501	E3
3502	D2
3504	C3
3854	D2
3856	D2
3858	B1
3860	D1
3876	C3
5400	A1
5571	B1
5600	D1
5601	C3
5700	A1
5750	E1
5770	G1
5800	D1
5801	D1
6501	B2
6503	C2
6508	B2
7453	H3
7750	F1
7751	G2
7752	F2
7753	H2
7760	B2
7770	A2
7780	C1
7785	A3
7790	D1
7795	C3
7796	C3
9001	F1
9002	H1
9003	.F1
9004	B1
9005	E1
9006	D1
9007	A1
9008	A1
9009	D1
9010	H1
9011	H1
9012	A1
9013	A1
9014	H1
9016	E1
9017	C1
9019	B1
9020	E1
9021	G1
9022	H1
9023	G2
9024	H1
9025	F1
9026	F1
9027	H2
9028	F2
9029	G2
9030	F2
9031	B2
9032	B2
9033	H2
9034	E2
9035	G2
9036	C2
9037	F2
9038	C2
9039	B2
9040	C2
9042	G2
9043	E2
9044	D2
9045	D2
9046	A2
9047	D2
9048	C2
9049	C2
9050	G2
9051	H3
9052	C3
9053	C3
9054	G2
9055	G3
9056	E2
9057	H3
9058	E2
9059	D2
9060	B3
9061	F3
9062	A3
9063	B3
9064	F3
9066	B3
9067	B3
9068	D3
9069	F3
9070	H3
9071	B3
9072	G3
9073	F3
9074	D3
9075	G3
9076	C3
9077	D3
9078	E3
9079	B3
9080	C1

Einstellung an JCOVPT

Einstellung der "timer-clock" Frequer (2401)

- Einen Frequenzmesser mittels FET-Tastkopf an Anschluß 2 von IC7453 schalten
- 2401 so regeln, daß die Frequenz 32,768 kHz ± 0,12 Hz beträgt

Einstellung der AGC (3406)

- Das Gerät auf einen Sender von d Antenne abstimmen
- Ein Oszilloskop an Pin 14 von IC7785 anschließen
- Mit 3406 das Videosignal auf 1,85 V_{ss} einstellen

Adjustments on JCOVPT

Setting of the timer clock frequency (2401)

- Connect a frequency counter via a FET probe to pin 2 of IC7453
- Adjust 2401 until the frequency is 32,768 kHz ± 0,12 Hz

Setting of the AGC (3406)

- Tune the set to a signal via the aerial
- Connect an oscilloscope to pin 14 IC7785
- Adjust the video signal to 1,85 V_{pp} with 3406

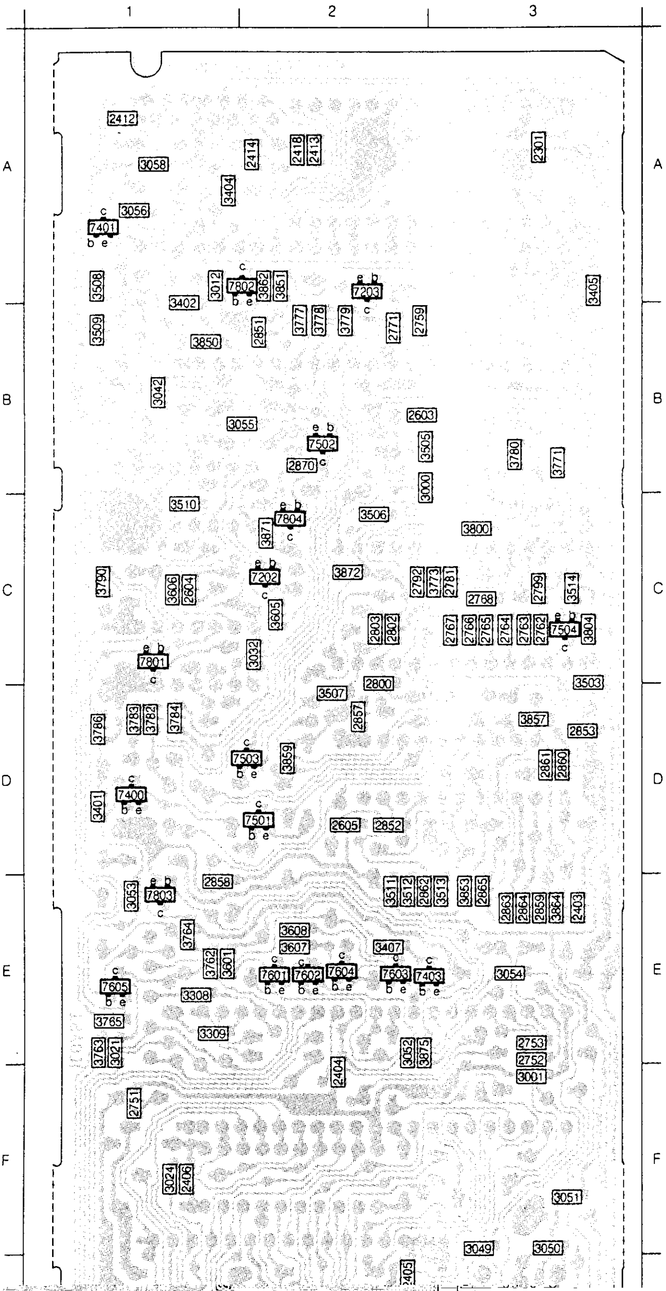
Instellingen op JCOVPT

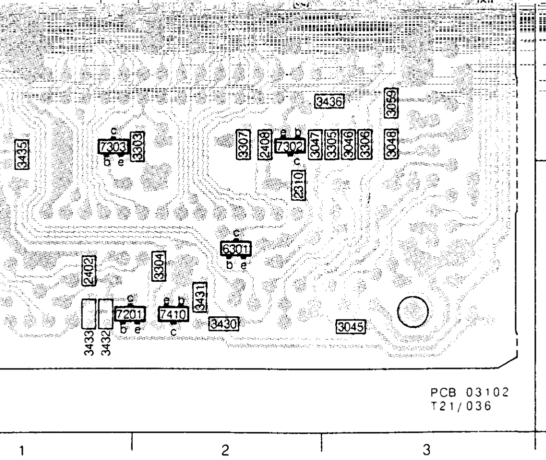
Instelling van de klokfrekwentie (240

- Sluit een frekwentieteller via een FET probe aan op pin 2 van IC745
- Regel 2401 af zodat de frekwentie 32,768 kHz ± 0,12 Hz is

Instellingen van de AGC (3406)

- Stem de videorecorder op een zender af via de antenne
- Sluit een oscilloscoop aan op pin 1 van 7785
- Regel de amplitude van het video signaal met 3406 af op 1.85 V_{tt}


1
2
3
A
B
C
D
E
F
2412
3058
3056
7401
3404
2414
2418
2413
2301
3508
3509
3402
3012
7802
3862
3851
7203
3405
3850
2851
3777
3778
3779
2771
2759
3042
3055
7502
2870
2603
3505
3000
3780
3771
3510
7804
3871
3506
3800
3790
3606
2604
7202
3605
3872
2792
3773
2781
2768
2799
3514
2803
2802
2767
2766
2765
2764
2763
2762
7504
3804
3032
7801
3507
2800
3503
3786
3783
3782
3784
2857
3857
2853
7503
3859
2861
2860
3401
7400
7501
2605
2852
3053
7803
2858
3511
3512
2862
3513
3853
2865
2863
2864
2859
3864
2403
3764
3608
3607
3762
3601
7601
7602
7604
3407
7603
7403
3054
7605
3308
3765
3309
3763
3021
2404
3052
3875
2753
2752
3001
2751
3024
2406
3051
3049
3050
2405


G
H
1
2
3
3436
3059
3435
7303
3303
3307
2408
7302
3047
3305
3046
3306
3048
2310
6301
2402
3304
3431
7201
7410
3430
3045
3433
3432
PCB 03102
T21/036

2301	A3
2310	H2
2402	H1
2403	E3
2404	F2
2405	G2
2406	F1
2408	G2
2412	A1
2413	A2
2414	A2
2418	A2
2603	B2
2604	C1
2605	D2
2751	F1
2752	F3
2753	E3
2759	B2
2762	C3
2763	C3
2764	C3
2765	C3
2766	C3
2767	C3
2768	C3
2771	B2
2781	C3
2792	C2
2799	C3
2800	D2
2802	C2
2803	C2
2851	B2
2852	D2
2853	D3
2857	D2
2858	E1
2859	E3
2860	D3
2861	D3
2862	E3
2863	E3
2864	E3
2865	E3
2870	B2
3000	C3
3001	F3
3012	A1
3021	F1
3024	F1
3032	C2
3042	B1
3045	H3
3046	G3
3047	G2
3048	G3
3049	F3
3050	F3
3051	F3
3052	F2
3053	E1
3054	E3
3055	B1
3056	A1
3058	A1
3059	G3
3303	G2
3304	H2
3305	G3
3306	G3
3307	G2
3308	E1
3309	E1
3401	D1
3402	B1
3404	A1
3405	B3
3407	E2
3430	H2
3431	H2
3432	H1
3433	H1
3434	G1
3435	H1
3436	G2
3503	D3
3505	B3
3506	C2
3507	D2
3508	A1
3509	B1
3510	C1
3511	E2
3512	E2
3513	E3
3514	C3
3601	E1
3605	C2
3606	C1
3607	E2
3608	E2
3762	E1
3763	F1
3764	E1
3765	E1
3771	B3
3773	C3
3777	B2
3778	B2
3779	B2
3780	B3
3782	D1
3783	D1
3784	D1
3786	D1
3790	C1
3800	C3
3804	C3
3850	B1
3851	A2
3853	E3
3857	D3
3859	D2
3862	A2
3864	E3
3871	C2
3872	C2
3875	F3
6301	H2
7201	H1
7202	C2
7203	A2
7302	G2
7303	G1
7400	D1
7401	A1
7403	E2
7410	H2
7501	D2
7502	B2
7503	D1
7504	C3
7601	E2
7602	E2
7603	E2
7604	E2
7605	E1
7801	C1
7802	A1
7803	E1
7804	C2

Réglages sur JCOVPT

Réglage du rythmeur-horloge (2401)

- Brancher un fréquencemètre par une sonde FET sur la broche 2 de l'IC7453
- Ajuster 2401 pour que le fréquence soit de 32,768 kHz ± 0,12 Hz

Réglage de la CAG (3406)

- Ajuster l'appareil à un signal de l'entrée d'antenne
- Brancher un oscilloscope sur la broche 14 de 7785
- Ajuster l'amplitude de la signal vidéo à 1.85 V_{cc}

Ajustes del JCOVPT

Ajuste de la frequencia del reloj (2401)

- Conectar un frequencímetro a Pin 2 de IC7453 por medio de una sonda de prueba FET
- Ajustar 2401 de manera que la frequencia sea 32,768 kHz ± 0,12 Hz

Ajuste de AGC (3406)

- Conecte el registrador via antena a una señal
- Conectar un oscillógrafo a pin 14 de IC7785
- Ajustar la señal video a 1,85 V_{ss} con 3406

Regolazione per la parte JCOVPT

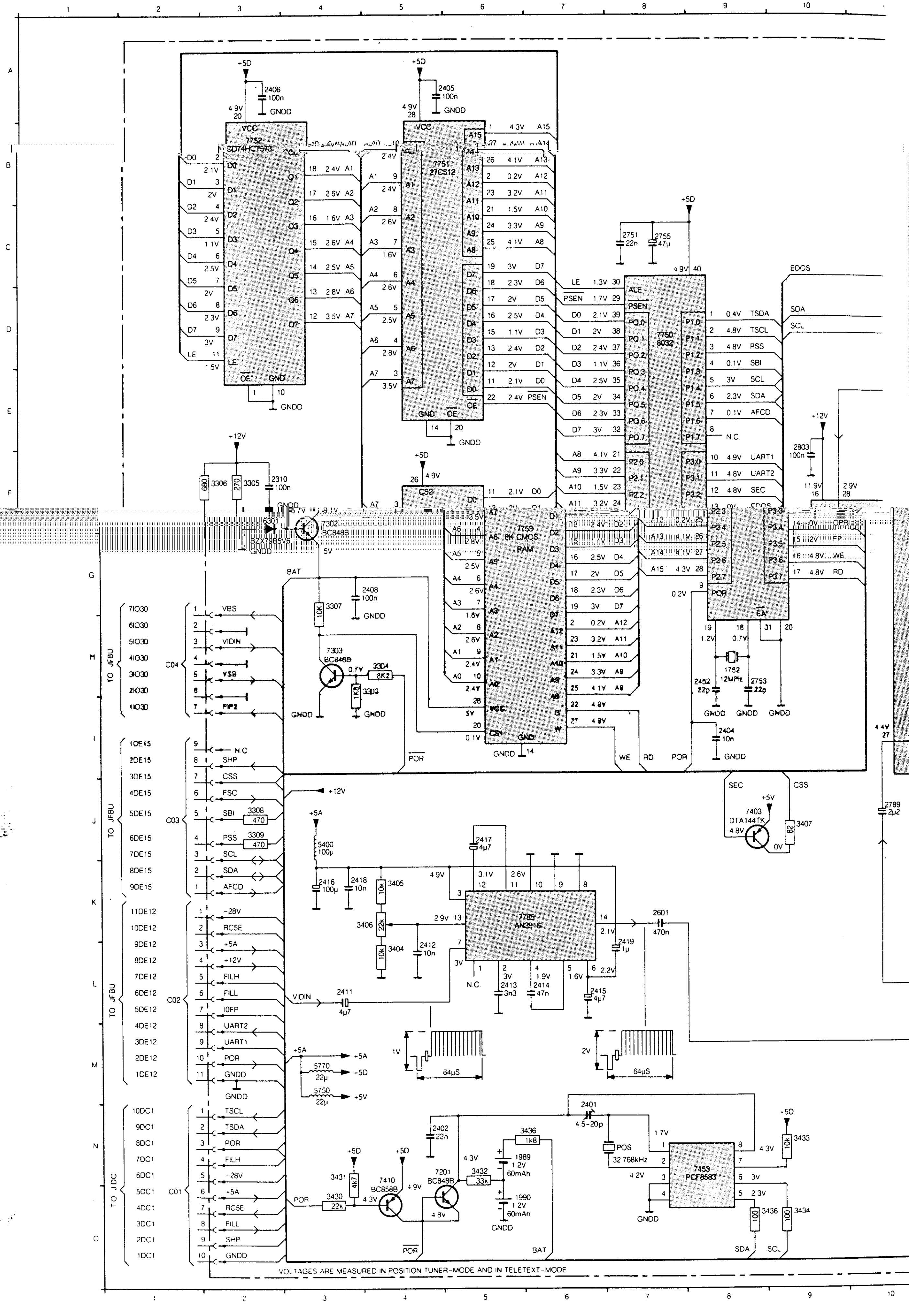
Regolazione della frequenza d'orologio (2401)

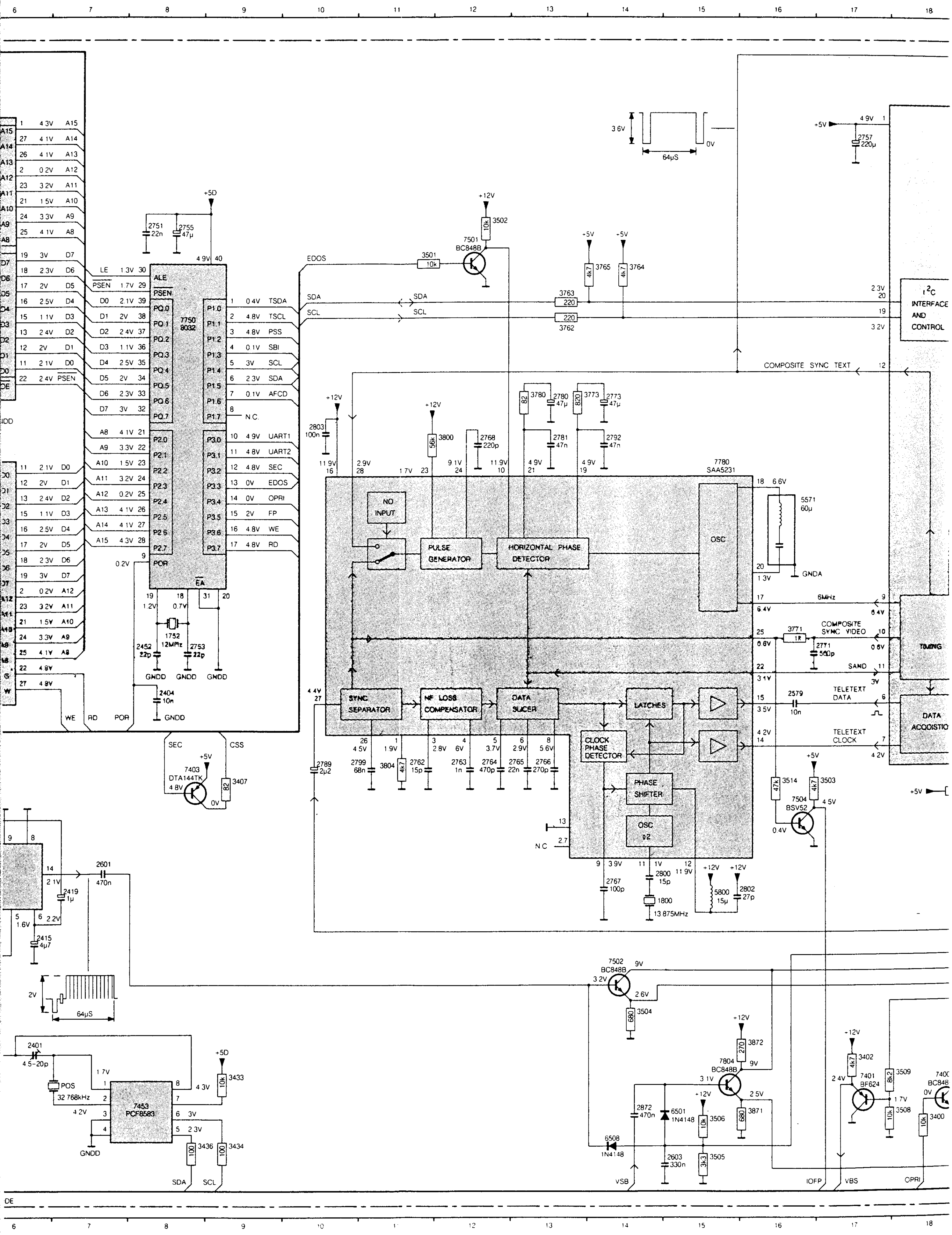
- Collegare un frequenzimetro a pin 2 di IC7453 con l'aiuto di un separatore FET
- Regolare 2401 in modo che la frequenza sia 32,768 kHz ± 0.12 Hz

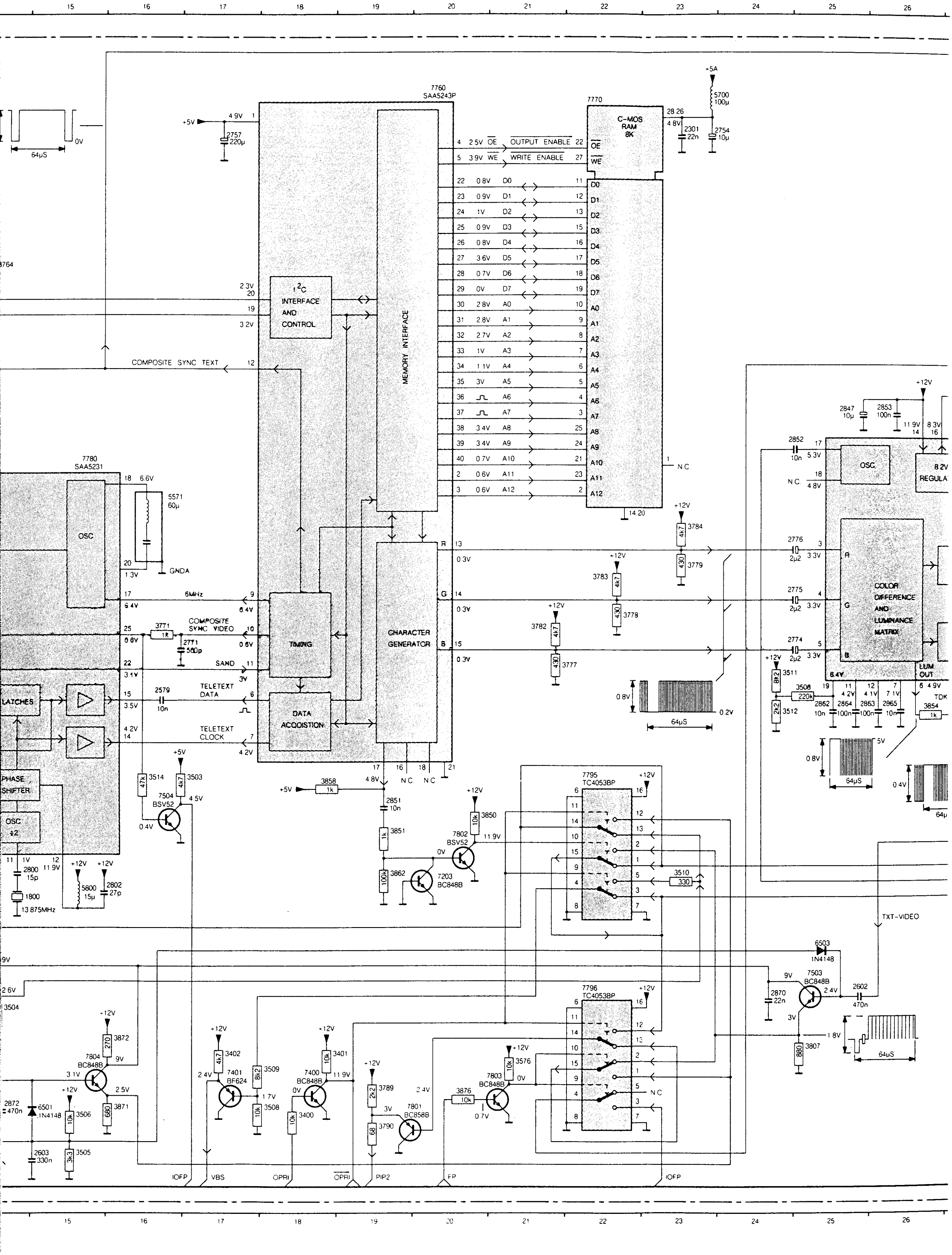
Regolazione dell'AGC (3406)

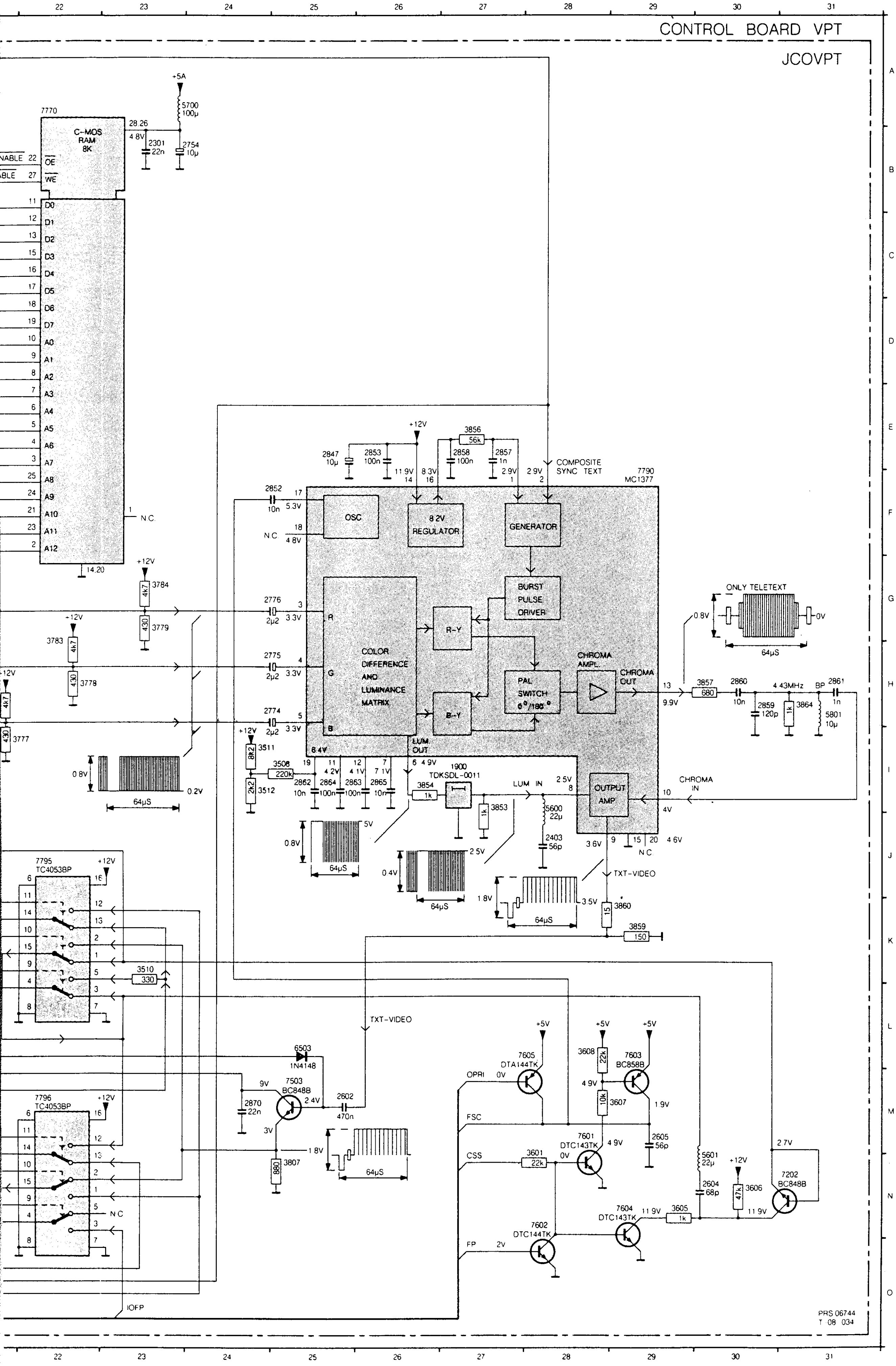
- Collegare l'apparecchio via antenna ad un segnale
- Collegare un'oscillografo a pin 14 di IC7785
- Regolare il video segnale con 3406 a 1,85 V_{pp}

Control board JCO/VPT


7752
CD74HCT573
7751
27C512
7753
8K CMOS
RAM
7750
8032
7785
AN3916
7453
PCF8583
7302
BC848B
7303
BC848B
6301
BZX79B5V6
7403
DTA144TK
7410
BC858B
7201
BC848B
1752
12MHz
32 768kHz
1989
1 2V
60mAh
1990
1 2V
60mAh
+5D
+12V
+5A
GNDD
ALE
PSEN
TSDA
TSCL
PSS
SBI
SCL
SDA
AFCD
UART1
UART2
SEC
EDOS
OPR
FP
WE
RD
POR
BAT
VBS
VIDIN
VSB
PIP2
N.C
SHP
CSS
FSC
-28V
RC5E
FILH
FILL
I0FP
C01
C02
C03
C04
TO JFBU
TO JDC
SYNC SEPARATOR
NO INPUT
1V
2V
64μS
VOLTAGES ARE MEASURED IN POSITION TUNER-MODE AND IN TELETEXT-MODE

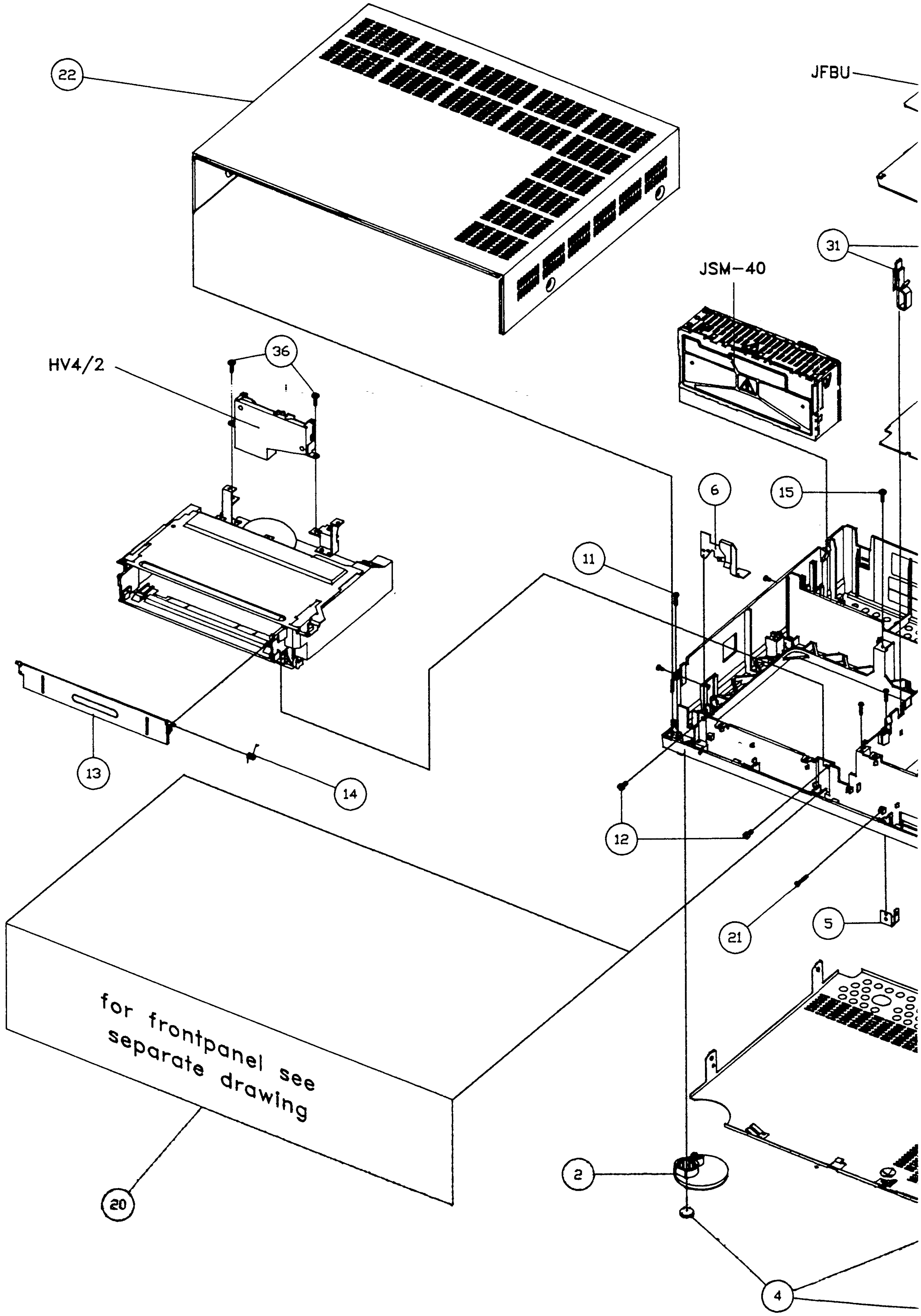

7750
8032
ALE
PSEN
P0.0
P0.1
P0.2
P0.3
P0.4
P0.5
P0.6
P0.7
P2.0
P2.1
P2.2
P2.3
P2.4
P2.5
P2.6
P2.7
POR
P1.0
P1.1
P1.2
P1.3
P1.4
P1.5
P1.6
P1.7
P3.0
P3.1
P3.2
P3.3
P3.4
P3.5
P3.6
P3.7
EA
TSDA
TSCL
PSS
SBI
SCL
SDA
AFCD
N.C.
UART1
UART2
SEC
EDOS
OPRI
FP
WE
RD
1752
12MHz
2751 22n
2755 47µ
2452 22p
2753 22p
2404 10n
GNDD
+5D
7403
DTA144TK
3407 82
CSS
SEC
7501
BC848B
3501 10k
3502 10k
+12V
3765 4k7
3764 4k7
3763 220
3762 220
3.6V
0V
64µS
+5V
2757 220µ
I²C
INTERFACE
AND
CONTROL
COMPOSITE SYNC TEXT
7780
SAA5231
NO
INPUT
PULSE
GENERATOR
HORIZONTAL PHASE
DETECTOR
OSC
SYNC
SEPARATOR
HF LOSS
COMPENSATOR
DATA
SLICER
LATCHES
CLOCK
PHASE
DETECTOR
PHASE
SHIFTER
OSC
÷2
5571 60µ
GNDA
6MHz
3771 1R
2771 560p
COMPOSITE
SYNC VIDEO
SAND
2579 10n
TELETEXT
DATA
TELETEXT
CLOCK
TIMING
DATA
ACQUISITION
2803 100n
3800 56k
2768 220p
3780 82
2780 47µ
2781 47n
3773 820
2773 47µ
2792 47n
2789 2µ2
2799 68n
3804 4k7
2762 15p
2763 1n
2764 470p
2765 22n
2766 270p
2767 100p
2800 15p
1800
13.875MHz
5800 15µ
2802 27p
3514 47k
3503 4k7
7504
BSV52
2601 470n
2419 1µ
2415 4µ7
2V
64µS
7502
BC848B
3504 680
7804
BC848B
3872 270
3871 680
2872 470n
6501 1N4148
6508 1N4148
3506 10k
3505 3k3
2603 330n
VSB
IOFP
VBS
OPRI
7401
BF624
3402 4k7
3509 8k2
3508 10k
3400 10k
2401
4.5-20p
POS
32.768kHz
7453
PCF8583
3433 10k
3436 100
3434 100
SDA
SCL
GNDD

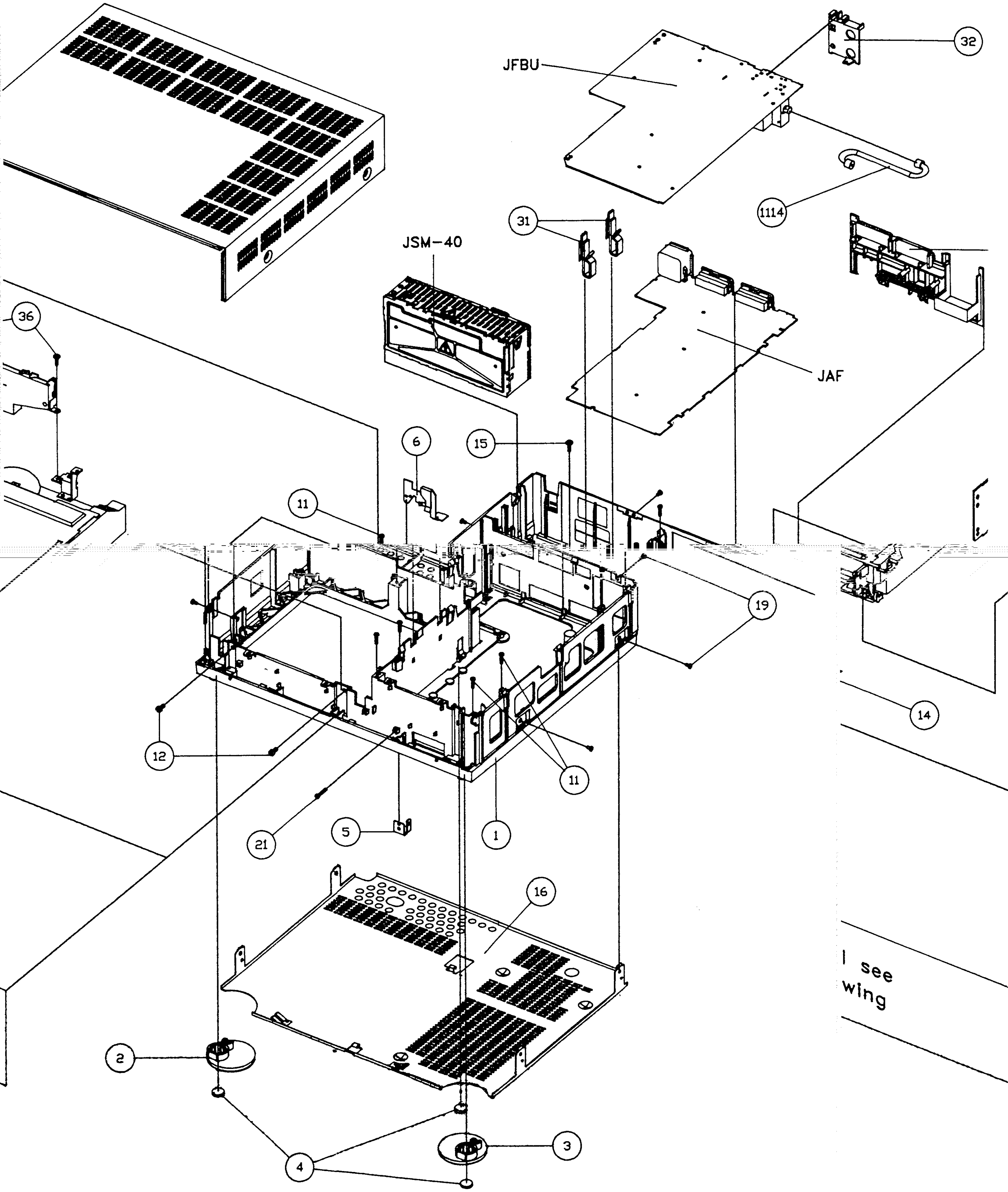

15 16 17 18 19 20 21 22 23 24 25 26
7760
SAA5243P
I²C INTERFACE AND CONTROL
MEMORY INTERFACE
TIMING
DATA ACQUISITION
CHARACTER GENERATOR
7770
C-MOS RAM 8K
OUTPUT ENABLE
WRITE ENABLE
OE
WE
D0 D1 D2 D3 D4 D5 D6 D7
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12
N.C
+5A
5700 100μ
2301 22n
2754 10μ
+5V
2757 220μ
64μS
0V
COMPOSITE SYNC TEXT
7780
SAA5231
OSC
5571 60μ
GNDA
6MHz
COMPOSITE SYNC VIDEO
3771 1R
2771 560p
SAND
TELETEXT DATA
2579 10n
TELETEXT CLOCK
LATCHES
PHASE SHIFTER
OSC ÷2
2800 15p
1800 13.875MHz
5800 15μ
2802 27p
3514 47k
3503 4k7
7504 BSV52
3858 1k
2851 10n
3851 1k
3862 100k
7203 BC848B
7802 BSV52
3850 10k
R G B
3784 4k7
3779 430
3783 4k7
3778 430
3782 4k7
3777 430
0.8V
0.2V
2776 2μ2
2775 2μ2
2774 2μ2
2852 10n
OSC
8.2V REGULA
COLOR DIFFERENCE AND LUMINANCE MATRIX
LUM OUT
2847 10μ
2853 100n
3511 8k2
3512 2k2
3508 220k
2862 10n
2864 100n
2863 100n
2865 10n
3854 1k
TDK
7795 TC4053BP
7796 TC4053BP
3510 330
TXT-VIDEO
6503 1N4148
7503 BC848B
2870 22n
2602 470n
3807 880
7804 BC848B
3872 270
3871 680
6501 1N4148
2872 470n
3506 10k
2603 330n
3505 3k3
3504
7401 BF624
3402 4k7
3509 8k2
3508 10k
7400 BC848B
3401 10k
3400 10k
3789 2k2
3790 68
7801 BC858B
3876 10k
7803 BC848B
3576 10k
IOFP VBS OPRI OPRI PIP2 FP IOFP

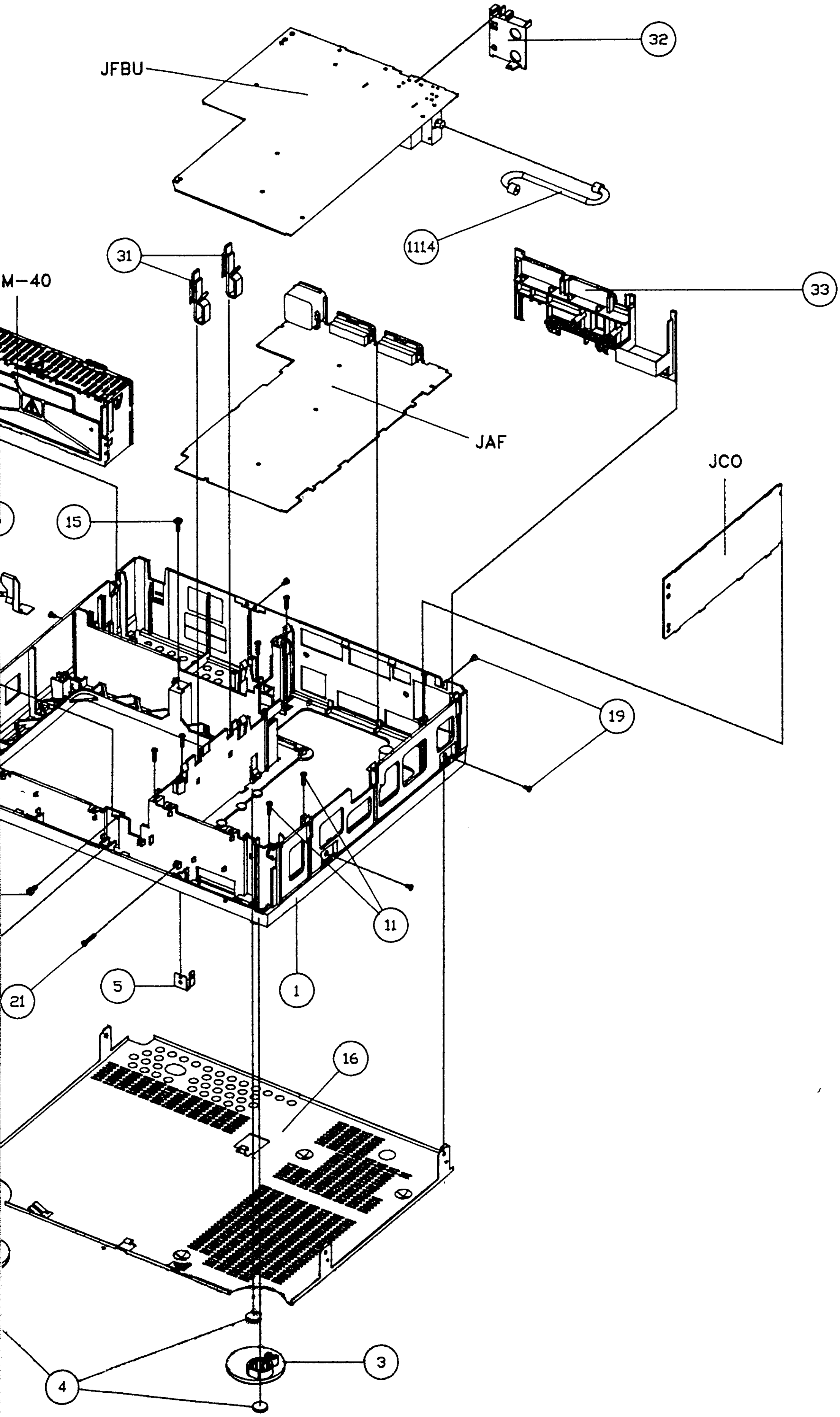

CONTROL BOARD VPT
JCOVPT
7770
C-MOS RAM 8K
ENABLE 22 OE
ABLE 27 WE
D0 D1 D2 D3 D4 D5 D6 D7
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12
N.C.
+5A
5700 100µ
2301 22n
2754 10µ
28.26
4.8V
14.20
+12V
3784 4k7
3779 430
3783 4k7
3778 430
3777 430
2776 2µ2
2775 2µ2
2774 2µ2
3.3V
0.8V
0.2V
64µS
+12V
3856 56k
2847 10µ
2853 100n
2858 100n
2857 1n
11.9V 8.3V 2.9V 2.9V
COMPOSITE SYNC TEXT
7790 MC1377
2852 10n
5.3V
4.8V
N.C
OSC
8.2V REGULATOR
GENERATOR
BURST PULSE DRIVER
R
G
B
COLOR DIFFERENCE AND LUMINANCE MATRIX
R-Y
B-Y
PAL SWITCH 0°/180°
CHROMA AMPL.
CHROMA OUT
LUM OUT
6.4V
4.9V
OUTPUT AMP
9.9V
3857 680
2860 10n
2859 120p
3864 1k
4.43MHz
BP
2861 1n
5801 10µ
ONLY TELETEXT
0.8V
0V
64µS
CHROMA IN
4V
3511 8k2
3508 220k
3512 2k2
2862 10n
2864 100n
2863 100n
2865 10n
4.2V 4.1V 7.1V
1900 TDKSDL-0011
3854 1k
LUM IN
2.5V
3853 1k
5600 22µ
2403 56p
3.6V
4.6V
NC
TXT-VIDEO
3860 15
3859 150
0.8V 5V
0.4V 2.5V
1.8V 3.5V
64µS
7795 TC4053BP
3510 330
7796 TC4053BP
NC
IOFP
6503 1N4148
7503 BC848B
9V
2.4V
3V
2870 22n
2602 470n
3807 880
1.8V
TXT-VIDEO
+5V
7605 DTA144TK
OPRI 0V
3608 22k
7603 BC858B
4.9V
3607 10k
1.9V
FSC
7601 DTC143TK
4.9V
2605 56p
CSS
3601 22k
0V
5601 22µ
2604 68p
+12V
3606 47k
7202 BC848B
2.7V
11.9V
7604 DTC143TK
3605 1k
7602 DTC144TK
FP 2V
PRS 06744 T 08 034
22 23 24 25 26 27 28 29 30 31
A B C D E F G H I J K L M N O

POS	N7
1752	H8
1800	L14
1900	I 27
1989	N5
1990	O5
2301	B23
2310	F4
2401	N6
2402	N4
2403	J28
2404	I 8
2405	A6
2406	A3
2408	G4
2411	L3
2412	L4
2413	L5
2414	L6
2415	L6
2416	K3
2417	J5
2418	K3
2419	L7
2452	H8
2579	I 16
2601	K7
2602	M25
2603	O15
2604	N30
2605	M29
2751	C8
2753	H8
2754	B23
2755	C8
2757	B17
2762	J11
2763	J12
2764	J12
2765	J12
2766	J13
2767	K14
2768	F12
2771	H17
2773	E14
2774	H25
2775	H25
2776	G25
2780	E13
2781	F13
2789	J10
2792	F14
2799	J10
2800	K14
2802	L16
2803	F10
2847	E25
2851	J19
2852	F25
2853	E26
2857	E27
2858	E27
2859	H30
2860	H30
2861	H31
2862	I 25
2863	I 25
2864	I 25
2865	I 26
2870	M24
2872	N14
3303	H4
3304	H4
3305	F3
3306	F3
3307	G3
3308	J2
3309	J2
3400	O18
3401	N18
3402	N17
3404	L4
3405	K4
3406	K4
3407	J9
3430	O3
3431	N4
3432	N5
3433	N9
3434	O9
3436	N6
3436	O8
3501	C11
3502	C12
3503	J17
3504	M14
3505	O15
3506	O15
3508	I 25
3508	N18
3509	N18
3510	K23
3511	I 24
3512	I 24
3514	J16
3576	N21
3601	N28
3605	N29
3606	N30
3607	M29
3608	L28
3762	D13
3763	D13
3764	C14
3765	C14
3771	H16
3773	E13
3777	I 21
3778	H22
3779	G23
3780	E13
3782	H21
3783	H22
3784	G23
3789	N19
3790	O19
3800	F12
3804	J11
3807	N25
3850	K20
3851	K19
3853	I 27
3854	I 26
3856	E27
3857	H30
3858	J18
3859	K29
3860	K28
3862	K19
3864	H31
3871	N16
3872	N16
3876	N20
5400	J3
5571	F17
5600	I 28
5601	N30
5700	A23
5750	M3
5770	M3
5800	L15
5801	H31
6301	F3
6501	N15
6503	L25
6508	O14
7201	N4
7202	N31
7203	K20
7302	F3
7303	H3
7400	N18
7401	N17
7410	N4
7430	J8
7453	N8
7501	C12
7502	L14
7503	M25
7504	J16
7601	M28
7602	N28
7603	L29
7604	N29
7605	L28
7750	D8
7751	B6
7752	B3
7753	G6
7760	A20
7770	A22
7780	F15
7785	K5
7790	F29
7795	J22
7796	M22
7801	N20
7802	K20
7803	N21
7804	N15

EXPLODED VIEW


22
JFBU
31
JSM-40
36
HV4/2
6
15
11
13
14
12
21
5
for frontpanel see separate drawing
20
2
4

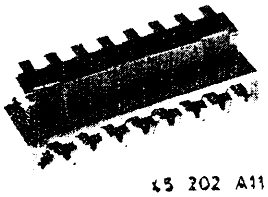

JFBU
JSM-40
JAF
l see
wing


JFBU
M-40
JAF
JCO

		Cabinet parts	Gehäuseteile	Pieces de presentation
1	4822 464 50812	Frame	Rahmen	Boîtier
2	4822 462 41736	Foot left	linker Fuss	Pied gauche
3	4822 462 41737	Foot right	rechter Fuss	Pied droit
4	4822 462 41289	Foot	Fuss	Pied
5	4822 403 70139	Bracket (for VR70x)	Klammer (für VR70x)	Support (pour VR70x)
6	4822 403 70141	Bracket (for VR70x)	Klammer (für VR70x)	Support (pour VR70x)
6	4822 402 61354	Bracket (for 7SB02)	Klammer (für 7SB02)	Support (pour 7SB02)
11	4822 502 11838	Screw	Schraube	Vis
12	4822 502 11697	Screw M4x8	Schraube M4x8	Vis M4x8
13	4822 443 63128	Lift flap (for VR702)	Liftklappe (für VR702)	Clapet (pour VR702)
13	4822 443 63149	Lift flap (for VR703)	Liftklappe (für VR703)	Clapet (pour VR703)
13	4822 443 63152	Lift flap (for 7SB02)	Liftklappe (für 7SB02)	Clapet (pour 7SB02)
13	4822 443 63158	Lift flap (for VR502)	Liftklappe (für VR502)	Clapet (pour VR502)
14	4822 492 52044	Spring	Feder	Ressort
15	4822 502 30546	Screw 4Nx3/4	Schraube 4Nx3/4	Vis 4Nx3/4
16	4822 443 51204	Bottom	Boden	Fond
19	4822 502 13173	Screw	Schraube	Vis
20	4822 443 40957	Control panel (for VR702)	Bedienungspanel (für VR702)	Panneau de commande (pour VR702)
20	4822 443 40963	Control panel (for VR703)	Bedienungspanel (für VR703)	Panneau de commande (pour VR703)
20	4822 443 40962	Control panel (for 7SB02)	Bedienungspanel (für 7SB02)	Panneau de commande (pour 7SB02)
20	4822 443 40965	Control panel (for VR502)	Bedienungspanel (für VR502)	Panneau de commande (pour VR502)
21	4822 502 13668	Screw	Schraube	Vis
22	4822 443 63141	Cover (for Vr70x)	Deckel (für VR70x)	Couvercle (pour VR70x)
22	4822 443 63159	Cover (for VR502)	Deckel (für VR502)	Couvercle (pour VR502)
31	4822 401 11377	Cable clamp	Kabelklammer	Fixation de cable
32	4822 443 63137	Cover	Deckel	Couvercle
32	4822 443 63171	Cover for /05	Deckel für /05	Couvercle pour /05
33	4822 402 61355	Support	Bolzen	Support
36	4822 502 30519	Screw	Schraube	Vis
150/1	4822 321 10457	Mains cord	Netzkabel	Cordon secteur
150/2	4822 321 23415	Antenna cable	Antennenkabel	Cable d'antenna
150/8	4822 321 22369	Cinch cable	Chinch Kabel	Cable Cinch
1114	4822 321 60916	Cable Tuner/Mod	Kabel Tuner/Mod	Cable Tuner/Mod

Stecker
Connector
Steker
fiche
spina
enchufe)—

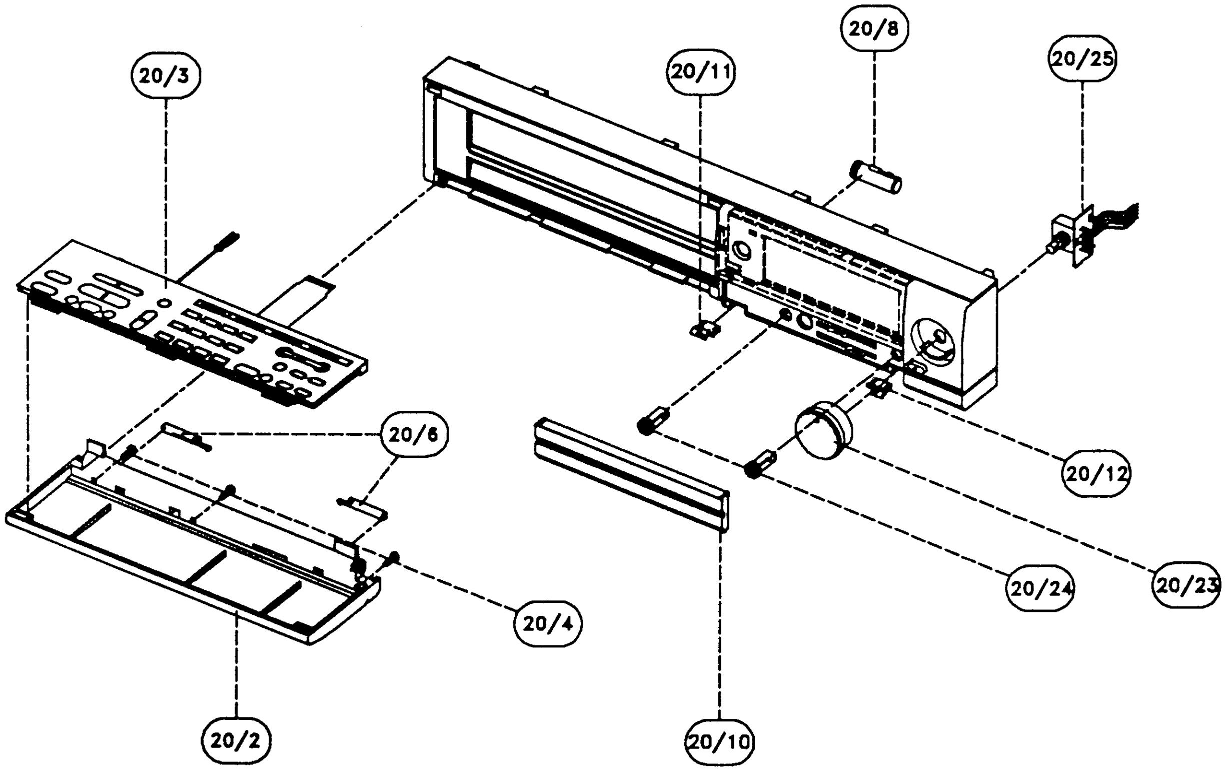
3p	4822 267 40655
4p	4822 267 40672
5p	4822 267 40656
6p	4822 267 40657
7p	4822 267 50644
8p	4822 267 50645
9p	4822 267 50768
12p	4822 267 50646
13p	4822 267 50771



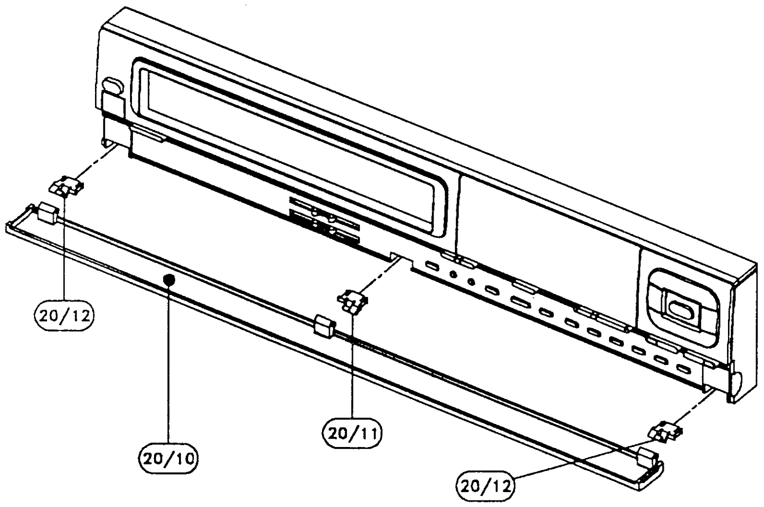
		Onderdelen apparaat	Componentes muebla	Parti del mobile
1	4822 464 50812	Frame	Bastidor	Mobile
2	4822 462 41736	Voet links	Pie izquierdo	Pedino sinistro
3	4822 462 41737	Voet rechts	Pie derecho	Pedino destro
4	4822 462 41289	Voet	Pie	Piede
5	4822 403 70139	Beugel (voor VR70x)	Abrazadera (para VR70x)	Morsetto (per VR70x)
6	4822 403 70141	Beugel (voor VR70x)	Abrazadera (para VR70x)	Morsetto (per VR70x)
6	4822 402 61354	Beugel (voor 7SB02)	Abrazadera (para 7SB02)	Morsetto (per 7SB02)
11	4822 502 11838	Schroef	Tornillo	Vite
12	4822 502 11697	Schroef M4x8	Tornillo M4x8	Vite M4x8
13	4822 443 63128	Liftklep (voor VR702)	Ventana (para VR702)	Sportello (per VR702)
13	4822 443 63149	Liftklep (voor VR703)	Ventana (para VR703)	Sportello (per VR703)
13	4822 443 63152	Liftklep (voor 7SB02)	Ventana (para 7SB02)	Sportello (per 7SB02)
13	4822 443 63158	Liftklep (voor VR502)	Ventana (para VR502)	Sportello (per VR502)
14	4822 492 52044	Veer	Muelle	Molla
15	4822 502 30546	Schroef 4Nx3/4	Tornillo 4Nx3/4	Vite 4Nx3/4
16	4822 443 51204	Bodem	Fondo	Fondo
19	4822 502 13173	Schroef	Tornillo	Vite
20	4822 443 40957	Bedienpaneel (voor VR702)	Panel de mandos (para VR702)	Pannello di comandi (per VR702)
20	4822 443 40963	Bedienpaneel (voor VR703)	Panel de mandos (para VR703)	Pannello di comandi (per VR703)
20	4822 443 40962	Bedienpaneel (voor VR502)	Panel de mandos (para VR502)	Pannello di comandi (per VR502)
20	4822 443 40965	Bedienpaneel (voor 7SB02)	Panel de mandos (para 7SB02)	Pannello di comandi (per 7SB02)
21	4822 502 13668	Schroef	Tornillo	Vite
22	4822 443 63141	Deksel (voor VR70x)	Tapa (para VR70x)	Coperchio (per VR70x)
22	4822 443 63159	Deksel (voor VR502)	Tapa (para VR502)	Coperchio (per VR502)
31	4822 401 11377	Kabel klem	Abrazadera de Cable	Morsetto di cavo
32	4822 443 63137	Deksel	Tapa	Coperchio
32	4822 443 63171	Deksel voor /05	Tapa para /05	Coperchio per /05
33	4822 402 61355	Steun	Perno	Perno
36	4822 502 30519	Schroef	Tornillo	Vite
150/1	4822 321 10457	Netkabel	Cable de red	Cavo di rete
150/2	4822 321 23415	Antennekabel	Cable de Antena	Cavo d'antenna
150/8	4822 321 22369	Cinch kabel	Cable cinch	Cavo cinch
1114	4822 321 60916	Kabel Tuner/Mod	Cable Tuner/Mod	Cavo Tuner/Mod

For Service Manuals
MAURITRON SERVICES
8 Cherry Tree Road, Chinnor
Oxfordshire, OX9 4QY.
Tel (01844) 351694
Fax (01844) 352554
email:- sales@mauritron.co.uk

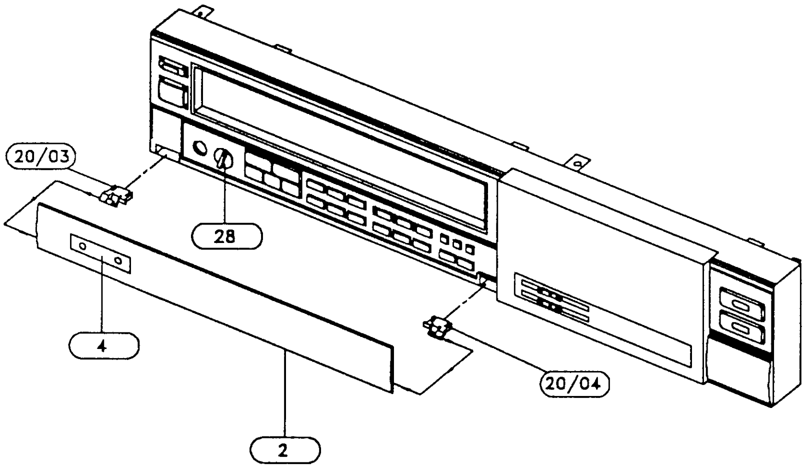
Front panel VR70x


20/3
20/8
20/11
20/25
20/6
20/12
20/4
20/24
20/23
20/2
20/10

Front panel VR502


20/12
20/10
20/11
20/12

Front panel 7SB02


20/03
28
4
2
20/04

Wordmark:

4	4822 459 10898	Aristona
4	4822 459 10895	Hornyphon
4	4822 459 10907	Mediator
4	4822 459 10897	Phonola
4	4822 459 10896	Radiola
4	4822 459 10912	SBR
4	4822 459 10904	Siera

VR70x		Frontpanel	Gehäuseteile	Pieces de presentation
20/2	4822 443 63142	Flap	Klappe	Clapet
20/3	4822 466 92935	Switchplate	Tastenblock	Clavier
20/4	4822 502 30386	Screw	Schraube	Vis
20/6	4822 500 10461	Bolt	Bolzen	Boulon
20/8	4822 529 10264	Damper	Dämpfer	Amortiseur
20/10	4822 443 63129	Flap	Klappe	Clapet
20/11	4822 417 10844	Hingle left	Scharnier links	Articulation gauche
20/12	4822 417 10839	Hingle right	Scharnier rechts	Articulation droite
20/23	4822 410 60893	RCS knob	RCS Knopf	RCS Bouton
20/24	4822 413 31636	Potmeter knob	Potmeter Knopf	Bouton potentiomètre
20/25	4822 214 33018	Print+Potmeter	Print+Potmeter	Platine potentiomètre
		Bedienpanel	**Panel de mandos**	**Pannello di comandi**
20/2	4822 443 63142	Klep	Ventana	Sportello
20/3	4822 466 92935	Toetsenpaneel	Teclado de mandos	Tastiera dei comandi
20/4	4822 502 30386	Schroef	Tornillo	Vite
20/6	4822 500 10461	Zeskantschroef	Perno	Perno
20/8	4822 529 10264	Demper	Amortiguador	Ammortizzatore
20/10	4822 443 63129	Klep	Ventana	Sportello
20/11	4822 417 10844	Scharnier links	Bisagra izquierda	Cerniera sinistra
20/12	4822 417 10839	Scharnier rechts	Bisagra derecha	Cerniera destra
20/23	4822 410 60893	RCS knop	Botón RCS	Bottone RCS
20/24	4822 413 31636	Potmeter knop	Potenciómetro botón	Potenziómetro bottone
20/25	4822 214 33018	Print+Potmeter	Print+Potenciómetro	Print+Potenziómetro

VR502		Frontpanel	Bedienungspanel	Panneau de commande
20/10	4822 443 63161	Flap	Klappe	Clapet
20/11	4822 417 10844	Hingle left	Scharnier links	Articulation gauche
20/12	4822 417 10839	Hingle right	Scharnier rechts	Articulation droite
		Bedienpanel	**Panel de mandos**	**Pannello di comandi**
20/10	4822 443 63161	Klep	Ventana	Sportello
20/11	4822 417 10844	Scharnier links	Bisagra izquierda	Cerniera sinistra
20/12	4822 417 10839	Scharnier rechts	Bisagra derecha	Cerniera destra

7SB02		Frontpanel	Bedienungspanel	Panneau de commande
2	4822 443 63151	Flap	Klappe	Clapet
20/3	4822 417 10844	Hinge left	Scharnier links	Articulation gauche
20/4	4822 417 10839	Hinge right	Scharnier rechts	Articulation droite
28	4822 413 31571	Potmeter knob	Potmeter Knopf	Bouton potentiomètre
		Bedienpanel	**Panel de mandos**	**Pannello di comandi**
2	4822 443 63151	Klep	Ventana	Sportello
20/3	4822 417 10844	Scharnier links	Bisagra izquierda	Cerniera sinistra
20/4	4822 417 10839	Scharnier rechts	Bisagra derecha	Cerniera destra
28	4822 413 31571	Potmeter knop	Potenciómetro botóne	Potenziómetro bottone

Tape Deck JED 4/2, JED 2/2

MECHANICAL PARTS

1(1)	4822 502 13241	SCREW
77(1)	4822 502 13243	SCREW
100(2)	4822 532 52054	CUT WASHER
101(2)	4822 492 32917	RELEASE SPRING
102(2)	4822 492 70085	LEVER SPRING
103(2)	4822 403 53604	MAIN LEVER(1)
104(2)	4822 403 53594	SUB LEVER
107(2)	4822 403 53843	SS-BRAKE UNIT
108(2)	4822 528 90697	TENSION ROLLER
109(2)	4822 403 53618	CAM FOLLOWER ARM
110(2)	4822 403 53581	DETENT ARM
111(2)	4822 522 32518	MAIN CAM GEAR
112(2)	4822 522 32516	SUB CAMGEAR
113(2)	4822 522 32519	CENTRE GEAR
114(2)	4822 522 32526	RETAINER GEAR
115(2)	4822 522 32517	PLANET GEAR
116(2)	4822 522 32792	CLUTCH DISK UNIT
119(2)	4822 522 52513	DRIVE DISK
120(2)	4822 522 32515	RING GEAR
121(2)	4822 532 52052	CUT WASHER
122(2)	4822 403 53578	CHANGE LEVER
123(2)	4822 403 53599	RELEASE LEVER
124(2)	4822 492 32909	RELEASE SPRING
125(2)	4822 403 53579	RELEASE LEVER
127(2)	4822 522 32532	REEL GEAR
128(2)	4822 522 32527	SUPPLY REEL GEAR
129(2)	4822 403 53577	RETURN LEVER (R)
130(2)	4822 403 53576	RETURN LEVER (L)
131(2)	4822 403 53572	STOPPER BASE
132(2)	4822 358 30881	TIMING BELT
133(2)	4822 691 20484	ROTOR UNIT *
134(2)	4822 403 53568	ROTOR STOPPER
135(2)	4822 691 20573	STATOR UNIT
136(2)	4822 466 92285	SUB PLATE
137(2)	4822 528 81246	CENTRE PULLEY
138(2)	4822 522 32524	LOADING GEAR (T)
139(2)	4822 492 32923	LOADING SPRING (T)
0(2)	4822 403 53612	LOADING ARM(T)
1(2)	4822 522 32531	SECTOR GEAR
142(2)	4822 522 32528	LOADING CAMGEAR
143(2)	4822 522 32523	LOADING GEAR(S)
144(2)	4822 403 53841	PLAY CONTROL ARM
145(2)	4822 403 53611	LOADING ARM(S)
146(2)	4822 522 32514	INTERMEDIATE GEAR
147(2)	4822 403 53841	CONTROL ARM
148(2)	4822 249 20075	FG HEAD *
149(2)	4822 492 32918	LOADING SPRING
150(2)	4822 502 13244	SPACER SCREW
151(2)	4822 505 10957	STOPPER NUT
201(3)	4822 443 30737	TOP PLATE
202(3)	4822 256 91536	CASSETTE HOLDER
216(3)	4822 443 40718	SIDE PLATE (L)
217(3)	4822 443 40716	SIDE PLATE (L)
219(3)	4822 443 40817	SIDE PLATE UNIT
221(3)	4822 214 32975	SLIDE SWITCH UNIT
229(3)	4822 535 92528	MAIN SHAFT
230(3)	4822 492 42298	WIPER SPRING (L)
231(3)	4822 403 53584	WIPER ARM (L)
232(3)	4822 403 53585	WIPER ARM (R)
233(3)	4822 492 42306	WIPER SPRING (R)
234(3)	4822 403 53626	CASSETTE GUIDE
236(3)	4822 492 42305	BLINDER SPRING
240(3)	4822 403 53627	CASSETTE HOLDER ANGLE

71(1)	4822 528 10718	REEL TABLE
72(1)	4822 691 20483	HOUSING UNIT
76(1)	4822 502 13169	SCREW
2(1)	4822 403 53724	MOUNTING ANGLE(L)
3(1)	4822 403 53565	MOUNTING ANGLE(R)
5(1)	4822 466 82418	EARTH PLATE
6(1)	4822 361 21381	SCANNERMOTOR JED 4/2
6(1)	4822 361 21379	SCANNERMOTOR JED 2/2
7(1)	4822 691 20578	UPPER CYLINDER JED 4/2
7(1)	4822 691 20604	UPPER CYLINDER JED 2/2
11(1)	4822 403 53614	TENSION ARM
12(1)	4822 492 32912	TENSION SPRING
13(1)	4822 401 11201	TENSION BAND
14(1)	4822 528 10717	SUPPLY REEL
15(1)	4822 532 52057	REEL WASHER (0,2MM)
15(1)	4822 532 52058	REEL WASHER (0,3MM)
15(1)	4822 532 52055	REEL MASTER
16(1)	4822 403 53615	TENSION RELEASE ARM
17(1)	4822 249 20076	FULL ERASE HEAD
18(1)	4822 403 53605	TENSION ARMBASE
19(1)	4822 403 53562	MOUNTING ANGLE(L)
20(1)	4822 532 52054	CUT WASHER
21(1)	4822 403 53616	RELEASE ARM (B)
22(1)	4822 492 32916	RELEASE SPRING
23(1)	4822 271 30638	SAFETY SWITCH
24(1)	4822 403 53622	MAIN BRAKE UNIT
25(1)	4822 403 53621	SOFT BRAKE UNIT
26(1)	4822 492 42296	SPRING
27(1)	4822 403 53623	MAIN BRAKE
28(1)	4822 403 53619	TAKE UP BRAKE
29(1)	4822 492 42295	SPRING
30(1)	4822 403 53563	MOUNTING ANGLE(R)
31(1)	4822 502 13168	ADJUST SCREW
32(1)	4822 492 52043	ADJUSTING SPRING
33(1)	4822 502 11834	AZIMUTH ADJUST SCREW
34(1)	4822 249 10415	A/C HEAD UNIT
35(1)	4822 505 10945	M4 NYLON NUT
36(1)	4822 505 10944	ADJUST NUT
37(1)	4822 403 53601	HEAD BASE UNIT
38(1)	4822 492 42297	A/C HEAD SPRING
39(1)	4822 403 53842	SUB LOADING UNIT
40(1)	4822 492 32907	SUB POST SPRING
41(1)	4822 502 13171	THRUST SCREW
42(1)	4822 502 13167	HOUSING SCREW
43(1)	4822 532 52053	OIL SEAL
44(1)	4822 403 53596	PINCH CAM CAP
45(1)	4822 528 81245	PRESSURE ROLLER UNIT
46(1)	4822 492 32914	PRESSURE SPRING
47(1)	4822 403 53582	PINCH PRESSURE ARM
48(1)	4822 492 32915	RELEASE SPRING
49(1)	4822 403 53583	PINCHLIFTARM
50(1)	4822 522 32522	P5 SECTORGEAR
51(1)	4822 522 32525	PINCH CAM
52(1)	4822 505 10737	M3 NYLON NUT
53(1)	4822 403 53609	P5 UNIT VXL1485
54(1)	4822 492 70088	P5 SPRING
55(1)	4822 276 12496	MODE SWITCH
57(1)	4822 403 70013	INCLINED BASE (S)
60(1)	4822 403 53571	POST STOPPER
62(1)	4822 403 53731	INCLINED BASE (T)
64(1)	4822 522 32529	PINCHDOWNGEAR
65(1)	4822 522 32512	CONNECTION GEAR
66(1)	4822 526 20151	SOLENOID UNIT
67(1)	4822 403 53603	KICK ROD UNIT
68(1)	4822 403 53569	SOLENOIDLEVER
69(1)	4822 492 32908	KICK ROD SPRING
70(1)	4822 492 32913	MAIN BRAKESPRING

Tape Deck JED 4/2, JED 2/2

SCREWS

S1	4822 502 13217
S2	4822 502 11283
S3	4822 502 30531
S5	4822 502 30553
S6	4822 502 30551
S7	4822 502 30556
S8	4822 502 30557
S9	4822 502 11968
S10	4822 502 30559
S11	4822 502 30558
S12	4822 502 30554
S14	4822 502 30562
S15	4822 502 30561
S16	4822 502 13219
S17	4822 502 13218

RETAINING RINGS

R1	5322 530 74076
R2	4822 530 70122

WASHERS

W1	5322 530 74076
W3	4822 532 11705

PRINTED BOARDS

4822 214 32533	MECHANISM CONNECTION CBA
4822 256 91574	LED-HOLDER UNIT
4822 214 32532	PHOTO TRANSISTOR (S)
4822 214 32975	PHOTO TRANSISTOR (T)

*** Instelling van de FG kop**

Instellen, zoals in de service manual van het loopwerk is beschreven, echter de uitgangsspanning moet >70mVtt - <180mVtt bedragen.

*** Adjustment of the FG-head**

Adjust the FG-head as described in the service manual of the mechanism, however the output voltage of the FG-head must be >70mVtt - <180mVtt.

*** Einstellung des FG-Kopfs**

Einstellung wie in Laufwerksdokumentation aber die Ausgangsspannung des FG-Kopfes muss >70mVss - <180 Vss sein.

*** Ajustage de la tête FG**

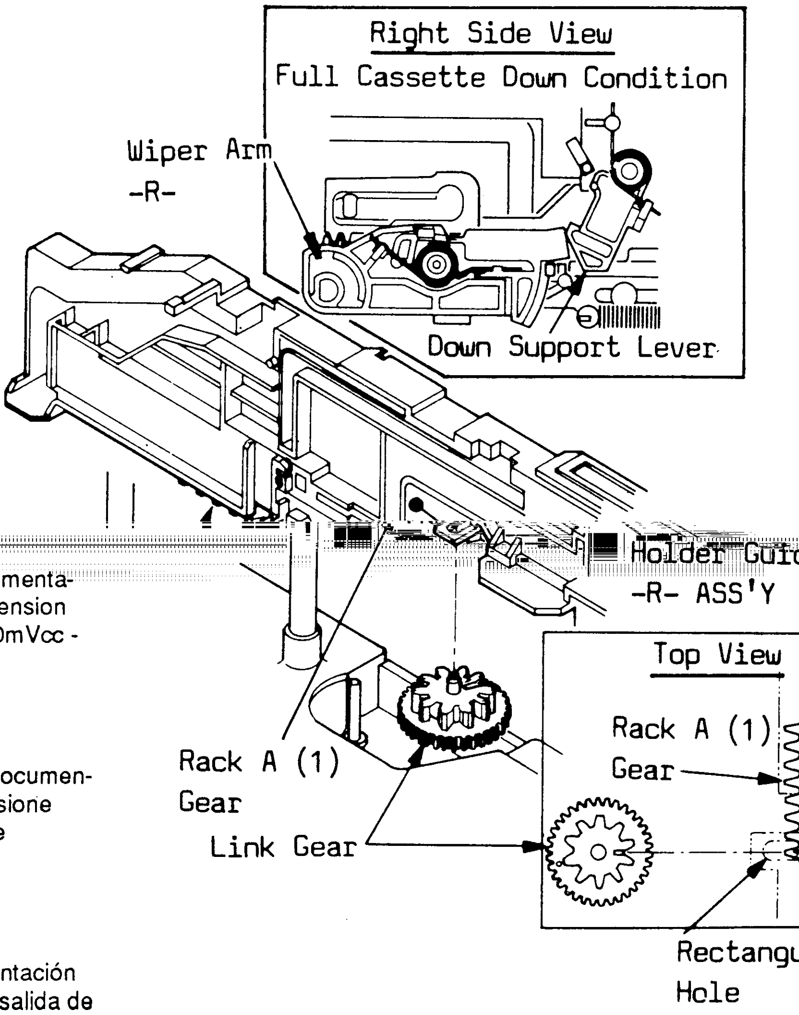
Ajustage comme écrit dans la documentation de la mécanisme. Pourtant la tension de sortie de la tête FG doit etre >70mVcc - <180mVcc.

*** Regulazione della testina FG**

Regulazione come descritta nella documentazione della meccanica, ma la tensione d'uscita della testina FG dev'essere >70mVpp - <180mVpp.

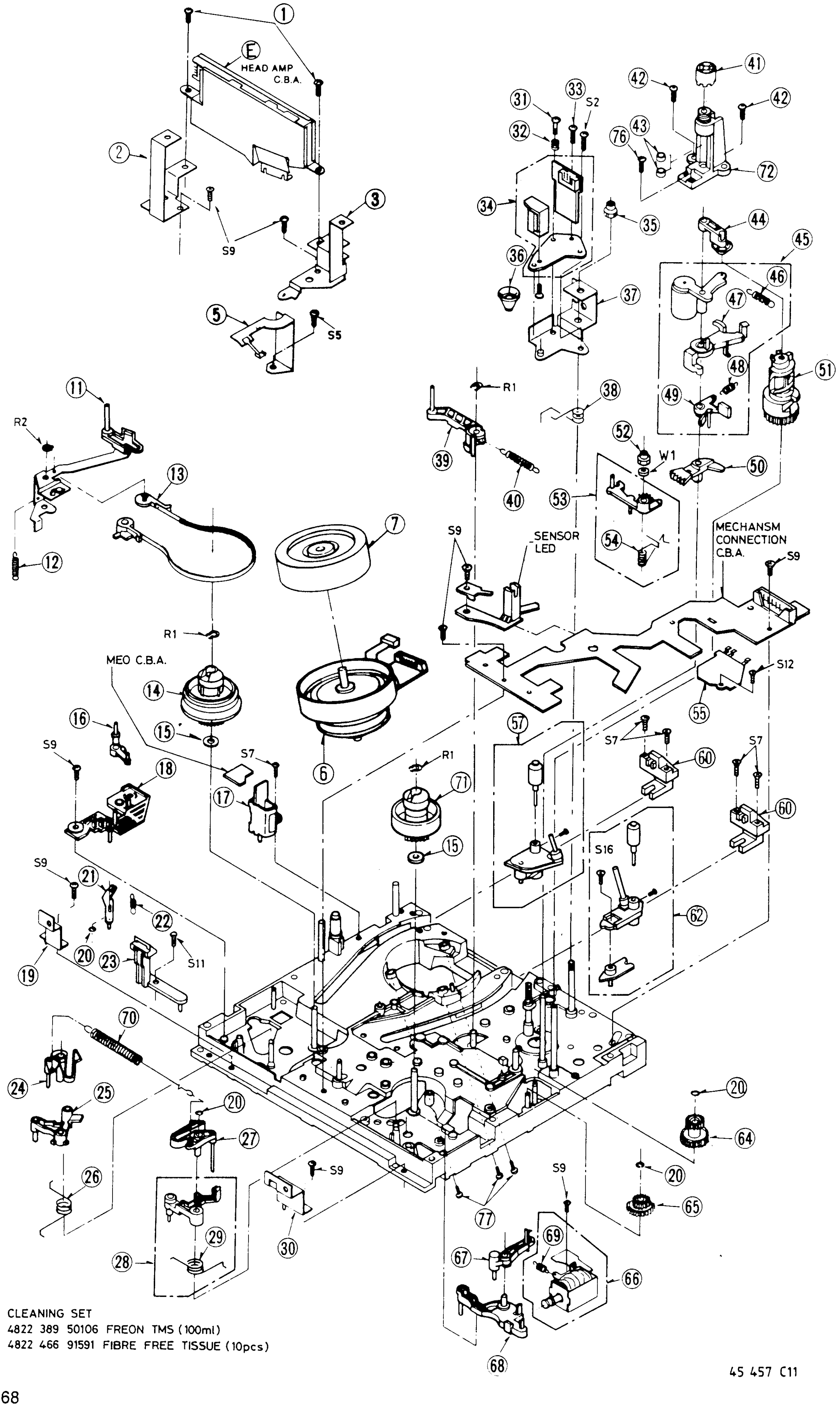
*** Ajuste de la cabeza FG**

Ajuste como descrito en la documentación de la mecánica, pero la tensión de salida de la cabeza FG tiene que ser >70mVss - <180mVss.


Right Side View
Full Cassette Down Condition
Wiper Arm
-R-
Down Support Lever
Holder Guid
-R- ASS'Y
Top View
Rack A (1)
Gear
Rack A (1)
Gear
Link Gear
Rectangu
Hole
45 2

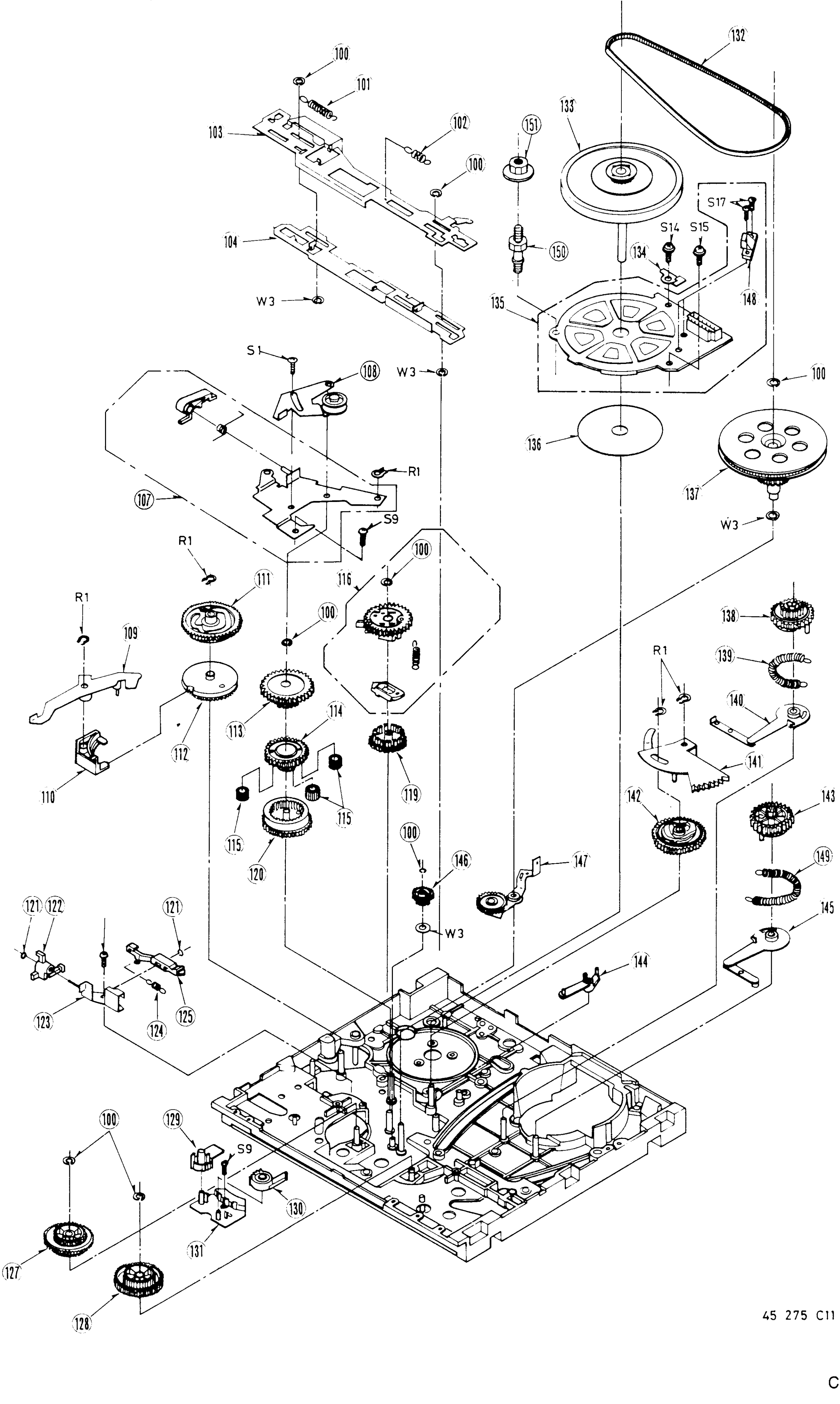
de
ılar
272 A11

Exploded view 1 (top view)


①
Ⓔ
HEAD AMP C.B.A.
②
③
S9
⑤
S5
㉛
㉜
㉝
S2
㉞
㉟
㊱
㊲
(41)
(42)
(42)
(43)
(76)
(72)
(44)
(45)
(46)
(47)
(48)
(49)
(51)
(50)
⑪
R2
⑫
⑬
⑦
R1
MEO C.B.A.
⑭
⑮
⑥
⑯
S9
⑱
S7
⑰
R1
㊳
㊴
㊵
(52)
W1
(53)
(54)
S9
SENSOR LED
MECHANSM CONNECTION C.B.A.
S9
S12
(55)
(57)
S7
(60)
S7
(60)
R1
(71)
⑮
S16
(62)
S9
㉑
㉒
⑳
⑲
㉓
S11
(70)
㉔
㉕
⑳
㉗
㉖
㉘
㉙
S9
㉚
⑳
(64)
⑳
(65)
S9
(77)
(69)
(67)
(66)
(68)
45 457 C11

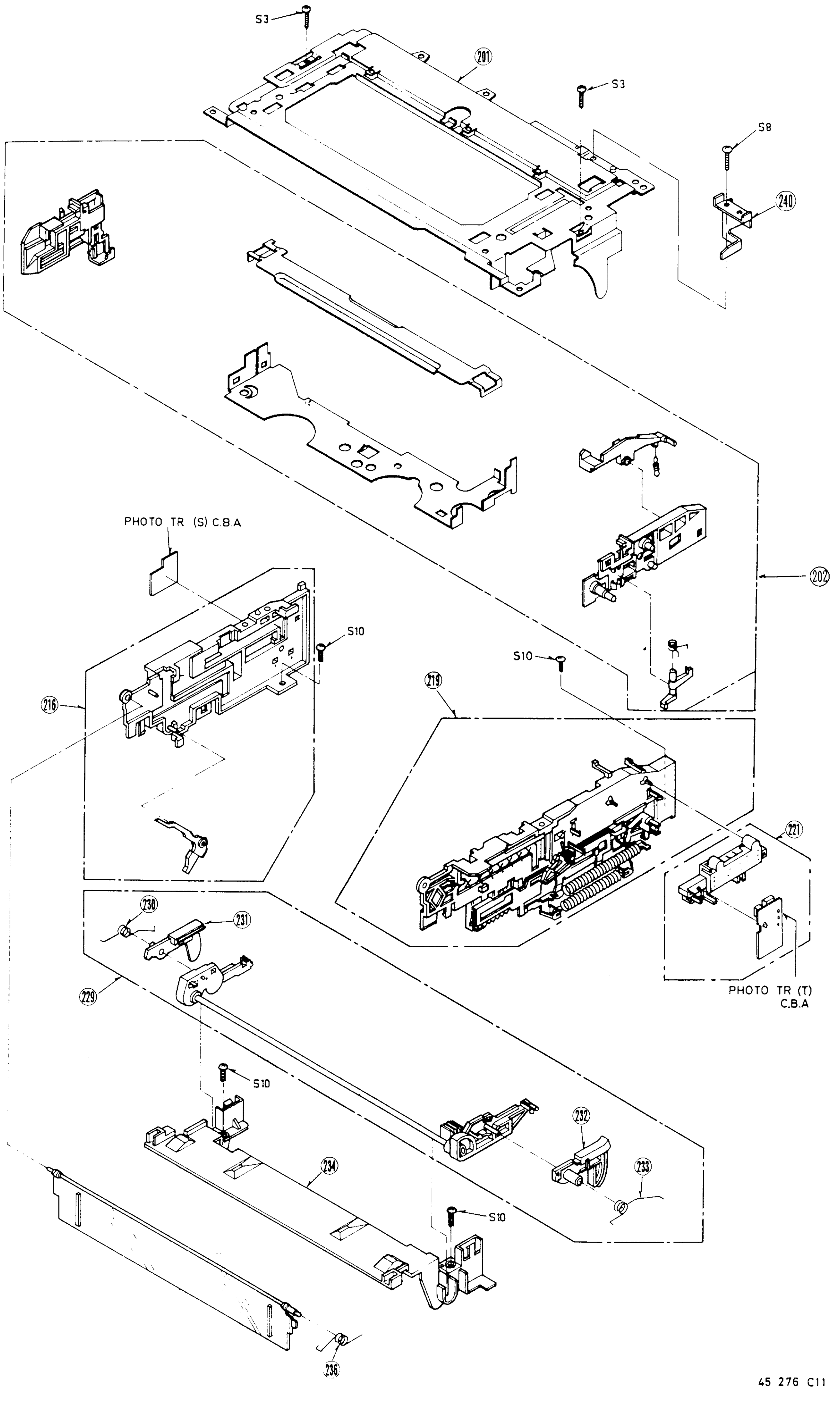
CLEANING SET
4822 389 50106 FREON TMS (100ml)
4822 466 91591 FIBRE FREE TISSUE (10pcs)

Exploded view 2 (bottom view)


100
101
102
103
100
104
W3
132
133
151
150
S17
S14
S15
134
135
148
S1
108
W3
100
136
137
W3
R1
107
S9
R1
100
111
116
R1
109
100
138
139
R1
140
113
112
114
110
141
119
115
115
120
142
143
100
146
147
149
121
122
121
145
W3
144
123
125
124
100
129
S9
130
131
127
128

45 275 C11

Exploded view 3 (cassette compartment)


S3
201
S3
S8
240
202
PHOTO TR (S) C.B.A
S10
S10
216
219
221
PHOTO TR (T) C.B.A
230
231
229
S10
232
233
234
S10
236

45 276 C11

Power supply JSM-40

MISCELLANEOUS

5322 390 20011	SILICONE GREASE
4822 265 30739	CONNECTOR 6 PIN

3238	4822 116 52207	1.2 kΩ
3240	4822 050 15601	560 Ω
3242	4822 050 18661	866 Ω
3243	4822 116 52175	100 Ω

063	CONNECTOR 9 PIN
3997	SPRING
1839	SCREW
0219	MAINS CONNECTOR
1689	ISOLATION PLATE

0232	FUSE 2,0A 250V
3151	FUSE 315MA
8009	FUSE 80MA

4372	220 nF	250V
3441	1 nF	125V
3076	470 pF	400V
3076	470 pF	400V
4151	100 nF	250V
1556	100 µF	385V
3441	1 nF	125V
3849	150 pF	50V
3849	150 pF	50V
2661	330 nF	
3075	680 pF	1000V
2198	68 nF	63V
0739	680 µF	25V
0739	680 µF	25V
0739	680 µF	25V
2426	100 µF	16V
2426	100 µF	16V
1069	47 µF	63V
2408	220 nF	63V
2408	220 nF	63V
1297	39 nF	63V
1248	27 nF	63V
1776	330 nF	63V
2686	15 nF	63V
0199	680 µF	16V
0199	680 µF	16V

1395	3.9 MΩ
1395	3.9 MΩ
2224	470 Ω
2196	2.2 MΩ
0338	3.3 Ω
0684	680 kΩ
2264	27 kΩ
0175	4.7 kΩ
2238	12 kΩ
0334	330 kΩ
2224	470 Ω
2175	100 Ω
2213	180 Ω
2191	33 Ω
2219	330 Ω
2182	15 Ω
2182	15 Ω
2289	5.6 kΩ
0175	4.7 kΩ
2197	56 Ω

3244	4822 116 52224	[illegible]
3246	4822 116 52211	150 Ω
3247	4822 116 52217	270 Ω
3248	4822 116 52217	270 Ω
3250	4822 116 52204	1 kΩ
3251	4822 116 52204	1 kΩ
3254	4822 116 52249	22 kΩ
3255	4822 050 11002	1 kΩ
3257	4822 050 12433	24.3 kΩ
3258	4822 050 11332	1.33 kΩ

COILS

5103	4822 157 53348
5114	4822 146 30881
5131	4822 157 53549
5134	4822 157 62551
5201	4822 157 53006
5207	4822 157 53006
5208	4822 157 53006
5215	4822 157 53006
5230	4822 157 53352
5263	4822 157 53528
5264	4822 157 53528

DIODES

6110	4822 130 80858	1N5062GP (GI)
6111	4822 130 80858	1N5062GP (GI)
6112	4822 130 80858	1N5062GP (GI)
6113	4822 130 80858	1N5062GP (GI)
6120	4822 130 80858	1N5062GP (GI)
6123	4822 130 30621	1N4148
6124	4822 130 30621	1N4148
6127	4822 130 31456	BZV85-C5V1
6129	4822 130 30621	1N4148
6136	4822 130 34193	BAX14
6137	4822 130 30621	1N4148
6138	4822 130 30621	1N4148
6207	4822 130 81516	MUR410 (MTLA)
6208	4822 130 81516	MUR410 (MTLA)
6215	4822 130 81272	MUR115 (MTLA)
6216	4822 130 30613	BAW62
6230	4822 130 81272	MUR115 (MTLA)
6235	4822 130 30621	1N4148
6236	4822 130 30621	1N4148
6237	4822 130 30621	1N4148
6241	4822 130 61219	BZX79-10V
6251	4822 130 30621	1N4148
6252	4822 130 30621	1N4148
6253	4822 130 34441	BZX79-B22
6260	4822 130 32715	SB340

TRANSISTORS & IC's

7121	4822 130 44196	BC548C
7124	4822 130 82034	CNX83A
7125	5322 130 60068	BC558C
7126	5322 130 44349	BC635
7135	4822 130 42679	BUT11AF
7243	4822 130 44568	BC557B
7246	4822 130 44503	BC547C
7253	4822 209 81397	TL431CLP (MOTA)

4822 265 4
4822 492 6
4822 502 1
4822 265 1
4822 466 6

FUSES

1101	4822 253 3
1216	4822 071 5
1228	4822 071 5

CAPACITORS

2101	5322 121 4
2103	4822 122 3
2105	4822 122 3
2107	4822 122 3
2108	5322 122 3
2112	4822 124 4
2113	4822 122 3
2121	4822 122 3
2124	4822 122 3
2127	5322 121 4
2135	4822 122 3
2136	4822 121 4
2207	4822 124 4
2208	4822 124 4
2210	4822 124 4
2211	4822 124 2
2212	4822 124 2
2217	4822 124 4
2221	4822 121 4
2222	4822 121 4
2236	4822 121 5
2238	4822 121 5
2244	4822 121 4
2254	4822 121 4
2260	4822 124 4
2261	4822 124 4

RESISTORS

3102	4822 053 2
3103	4822 053 2
3104	4822 116 5
3106	4822 110 4
3109	4822 053 3
3112	4822 053 2
3120	4822 116 5
3121	4822 116 8
3123	4822 116 5
3124	4822 053 2
3125	4822 116 5
3126	4822 116 5
3127	4822 116 5
3131	4822 116 5
3134	4822 116 5
3140	4822 116 5
3141	4822 116 5
3217	4822 116 5
3230	4822 116 8
3236	4822 116 5

Family board JFBU

CONNECTORS

0004	4822 265 30732	SOCKET 6-FOLD
0005	4822 267 50621	SOCKET 7-FOLD
0006	4822 265 41079	SOCKET
0007	4822 267 40697	SOCKET 6-FOLD
0008	4822 267 50723	SOCKET 13-FOLD
0009	4822 267 40624	SOCKET 5-FOLD
0010	4822 290 81377	L-CONTACTSTRIP
0012	4822 267 50722	SOCKET 10-FOLD
0013	4822 267 50721	SOCKET 9-FOLD
0014	4822 265 40722	SOCKET 11-FOLD
0015	4822 267 50996	CON SKT 13P
0016	4822 267 40919	CON SKT 4P
0017	4822 267 40697	SOCKET 6-FOLD
0018	4822 265 40475	SOCKET 8-FOLD
0019	4822 267 50721	SOCKET 9-FOLD
0020	4822 267 40696	SOCKET 3-FOLD
0022	4822 267 50723	SOCKET 13-FOLD
0023	4822 265 40902	SOCKET 15-FOLD

MISCELLANEOUS

0024	4822 466 82736	COOLING PLATE
0026	4822 502 11064	SCREW
0034	5322 390 20011	SILICON-GREASE DC 4
1002	4822 071 53151	FUSE 315MA
1101	4822 242 72413	QUARZ 4,433619MHZ
1300	4822 242 72913	QUARZ 12MHZ
1301	4822 071 58001	FUSE 800MA
1500	4822 214 32981	RF-MODULATOR PAL-BG
1500	4822 214 33127	RF-MODULATOR PAL-I
1501	4822 157 60192	GROUP DELAY
1701	4822 210 10392	TUNER UV916E
1701	4822 210 10393	TUNER U944 (only for PALI)
1702	4822 242 73842	SAW FILTER 0FWG1963 (only for PAL,SECAM B/G)
1702	4822 242 72095	SAW FILTER TSF5316
1702	4822 242 72576	SAW FILTER TSF5309 (only for PALI)
1740	4822 242 72086	CER.FILTER TPS5,5MB
1740	4822 242 72578	CER.FILTER TPS6,OMB (only for PALI)

CAPACITORS

2001	4822 122 31797	22 nF	
2002	4822 122 31961	68 pF	
2003	4822 124 41516	47 µF	16V
2004	4822 122 32542	47 µF (not for LP)	
2005	4822 122 31972	39 pF	
2006	4822 122 32442	10 nF	
2007	4822 124 22429	1 µF	50V
2008	4822 122 31772	47 pF	
2009	4822 122 31965	220 pF	
2010	4822 122 32765	820 pF	
2011	4822 122 31768	180 pF	
2012	4822 122 32444	33 pF	
2013	4822 122 31839	82 pF	
2014	4822 122 10166	22 nF	16V
2015	5322 121 42661	330 nF	50V
2022	4822 122 31774	56 pF	
2023	4822 122 32442	10 nF	
2024	4822 124 22429	1 µF	50V
2025	4822 124 41516	47 µF	16V
2026	4822 122 31766	120 pF	
2027	4822 122 31769	18 pF	
2028	4822 122 31769	18 pF	
2029	4822 122 32597	6.8 nF	
2030	4822 122 32442	10 nF	
2031	4822 122 31797	22 nF	
2032	4822 122 32442	10 nF	
2033	4822 122 32442	10 nF	
2034	4822 122 32442	10 nF	
2035	4822 122 32082	4.7 pF	
2036	4822 122 31765	100 pF	
2037	4822 122 32597	6.8 nF	
2038	4822 122 31965	220 pF	
2039	4822 122 31727	470 pF	
2040	4822 122 32542	47 nF	
2041	4822 124 41521	10 µF	25V
2042	4822 124 41588	4.7 µF (not for LP)	
2043	4822 124 41521	10 µF	25V
2044	4822 124 42097	22 µF	16V
2045	4822 124 42097	22 µF	16V
2046	4822 122 32597	6.8 nF	
2047	4822 122 31797	22 nF	
2048	4822 124 41516	47 µF	16V
2049	4822 122 32893	100 nF	50V
2050	4822 124 41516	47 µF	16V
2051	4822 122 32893	100 nF	50V
2052	4822 122 32442	10 nF	
2053	4822 124 41521	10 µF	25V
2055	4822 122 31839	82 pF	
2056	4822 122 31772	47 pF	
2057	4822 122 32893	100 nF	50V
2058	4822 124 42097	22 µF	16V
2059	4822 122 32893	100 nF	50V
2060	4822 122 31797	22 nF	
2061	4822 122 31825	27 pF	
2063	4822 122 31773	560 pF	
2064	4822 122 31774	56 pF	
2065	4822 122 32893	100 nF	50V
2066	4822 122 31972	39 pF	
2067	4822 122 32442	10 nF	
2068	4822 122 31772	47 pF	
2069	4822 122 32442	10 nF	
2070	4822 122 32893	100 nF	50V
2071	4822 122 32504	15 pF	
2072	4822 122 31768	180 pF	
2073	4822 122 31839	82 pF	
2074	4822 122 31765	100 pF	
2101	4822 122 32765	820 pF	
2102	4822 122 32442	10 nF (not for LP)	
2103	4822 122 10166	22 nF	16V
2104	5322 122 31647	1 nF	
2105	5322 122 31647	1 nF	
2106	4822 122 32597	6.8 nF	
2107	4822 122 31965	220 pF	
2108	4822 122 31972	39 pF	
2109	4822 122 31972	39 pF	
2110	4822 122 31765	100 pF	
2111	4822 124 22426	100 µF	16V
2112	4822 122 32442	10 nF	
2113	4822 122 32566	3.9 nF	
2114	4822 122 32542	47 nF	
2114	4822 122 31797	22 nF (not for LP)	
2115	4822 121 42868	220 nF	50V
2116	4822 121 42868	220 nF	50V
2117	4822 122 31765	100 pF	
2118	5322 122 31647	1 nF (only for PAL/SECAM/B/G)	
2119	4822 124 41588	4.7 µF	25V
2120	4822 122 32566	3 nF	

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2121	4822 124 22429	1 µF	50V
2122	4822 124 22425	2.2 µF	50V
2123	4822 122 32597	6.8 nF	
2124	5322 122 31647	1 nF	
2125	5322 122 31647	1 nF	
2126	5322 122 31647	1 nF	
2127	4822 124 22426	100 µF	16V
		(only for PAL/SECAM/B/G)	
2128	4822 124 22429	1 µF	50V
2129	4822 124 22429	1 µF	50V
2130	4822 122 32442	10 nF	
2131	4822 122 31825	27 pF	
2132	4822 122 31765	100 pF	
2133	4822 122 32893	100 nF	50V
2134	4822 122 31825	27 pF	
2135	4822 122 32893	100 nF	50V
2136	4822 124 41516	47 µF	16V
2137	4822 122 31965	220 pF	
2138	5322 122 31842	330 pF	
2139	5322 122 31647	1 nF	
2140	4822 124 22425	2.2 µF	50V
		(only for PAL/SECAM/B/G)	
2141	4822 124 22425	2.2 µF	50V
		(only for PAL/SECAM/B/G)	
2142	5322 122 31647	1 nF	
		(only for PAL/SECAM/B/G)	
2143	4822 124 41588	4.7 µF	25V
		(only for PAL/SECAM/B/G)	
2144	4822 122 32442	10 nF	
2145	4822 122 32442	10 nF	
2201	4822 122 32442	10 nF (only for LP)	
2202	4822 122 32442	10 nF (only for LP)	
2203	4822 122 32442	10 nF (only for LP)	
2204	4822 122 32442	10 nF (only for LP)	
2205	4822 124 41516	47 µF	16V (only for LP)
2206	4822 122 32442	10 nF (only for LP)	
2207	4822 122 32442	10 nF (only for LP)	
2208	4822 122 32442	10 nF (only for LP)	
2209	4822 122 31972	39 pF (only for LP)	
2210	4822 124 41521	10 µF	25V (only for LP)
2211	4822 124 41521	10 µF	25V (only for LP)
2212	4822 124 41521	10 µF	25V (only for LP)
2213	5322 122 31842	330 pF (only for LP)	
2214	4822 122 32542	47 nF (only for LP)	
2215	4822 124 41521	10 µF	25V (only for LP)
2216	4822 124 41521	10 µF	25V (only for LP)
2217	4822 122 32442	10 nF (only for LP)	
2218	4822 122 32442	10 nF (only for LP)	
2219	4822 122 32442	10 nF (only for LP)	
2300	4822 122 31784	4.7 nF	
2301	4822 124 41516	47 µF	16V
2302	4822 124 41516	47 µF	16V
2303	4822 122 32542	47 nF	
2304	4822 122 32893	100 nF	5V
2305	4822 124 41516	47 µF	16V
2306	4822 122 32542	47 nF	
2307	4822 122 32542	47 nF	
2308	5322 122 31647	1 nF	
2309	5322 122 31647	1 nF	
2311	4822 124 41516	47 µF	16V
2312	4822 122 31797	22 nF	
2313	4822 124 22425	2.2 µF	50V
2314	4822 124 22425	2.2 µF	50V
2315	4822 124 22425	2.2 µF	50V
2316	4822 122 31797	22 nF	
2317	4822 124 23034	0.47 µF	50V
2318	4822 122 32893	100 nF	5V
2319	5322 122 33446	3.3 nF	
2320	4822 122 32542	47 nF	
2321	5322 122 33446	3.3 nF	
2322	4822 122 32542	47 nF	
2323	5322 122 33446	3.3 nF	
2324	4822 122 32542	47 nF	
2325	4822 124 22425	2.2 µF	50V
2326	4822 122 32442	10 nF	
2327	4822 122 31797	22 nF	
2328	4822 121 42408	220 nF	63V
2329	4822 122 32442	10 nF	
2330	4822 122 32442	10 nF	
2331	4822 122 32893	100 nF	5V
2332	4822 122 32893	100 nF	5V
2333	4822 124 42006	1 µF	BIP 50V
2334	4822 124 42006	1 µF	BIP 50V
2335	4822 124 42006	1 µF	BIP 50V
2336	4822 122 31765	100 pF	
2337	4822 122 32893	100 nF	50V
2339	4822 122 32442	10 nF	
2340	4822 122 32566	3.9 nF	
2341	4822 122 32442	10 nF	
2342	4822 122 32482	22 pF	
2343	4822 122 32482	22 pF	
2344	4822 122 32893	100 nF	50V
2345	4822 124 22426	100 µF	16V
2346	4822 124 22426	100 µF	16V
2347	5322 121 42491	47 nF	50V
2348	4822 122 10166	22 nF	16V
2349	4822 124 41516	47 µF	16V
2350	4822 122 32893	100 nF	50V
2351	4822 122 32893	100 nF	50V
2352	4822 122 32893	100 nF	50V
2353	4822 122 32542	47 nF	
2354	4822 124 22426	100 µF	16V
2355	5322 122 31647	1 nF	
2356	4822 122 32893	100 nF	5V
2358	4822 122 31797	22 nF	
2359	5322 122 31647	1 nF	
2362	4822 122 32442	10 nF	
2363	5322 122 33446	3.3 nF	
2364	5322 122 31647	1 nF	
2370	4822 122 31797	22 nF	
2514	4822 122 31769	18 pF	
2515	4822 122 31797	22 nF	
2601	4822 124 41516	47 µF	16V
2602	4822 124 41588	4.7 µF	25V
2603	4822 124 41516	47 µF	16V
2604	4822 122 32442	10 nF	
2605	4822 122 31797	22 nF	
2606	4822 124 41516	47 µF	16V
2607	4822 122 31781	1.5 nF	
2608	4822 124 41588	4.7 µF	25V
2609	5322 122 31647	1 nF	
2610	4822 122 32442	10 nF	
2611	4822 124 22426	100 µF	16V
2612	4822 124 41588	4.7 µF	25V
2613	5322 122 31647	1 nF	
2614	4822 124 41516	47 µF	16V
2615	4822 121 42408	220 nF	63V
2616	4822 122 31765	100 pF	
2617	4822 122 31765	100 pF	
2618	4822 122 31965	220 pF	
2620	5322 122 31647	1 nF	
2621	4822 122 31775	680 pF	
2660	4822 124 42097	22 µF	16V
2661	5322 121 42491	47 nF	50V

2662	5322 122 31647	1 nF	
2663	5322 122 31842	330 pF	
2664	4822 121 43801	12 nF	50V
2665	4822 124 41516	47 µF	16V
2700	4822 122 32893	100 nF	50V
2701	4822 122 32893	100 nF	50V
2702	4822 122 31797	22 nF	
2703	4822 122 32442	10 nF	
2704	4822 122 32442	10 nF	
2710	4822 122 32893	100 nF	50V (only for VPS)
2711	4822 122 31825	27 pF (only for VPS)	
2712	5322 121 42489	33 nF	50V (only for VPS)
2713	4822 122 32442	10 nF (only for VPS)	
2714	4822 124 42097	22 µF	16V (only for VPS)
2730	4822 124 22425	2.2 µF	50V
2740	4822 124 41516	47 µF	16V
2741	4822 124 22429	1 µF	50V
2743	4822 122 32893	100 nF	5V
2744	4822 122 32442	10 nF	
2745	4822 122 32893	100 nF	5V
2746	4822 122 32893	100 nF	5V
2747	4822 124 22425	2.2 µF	50V
2748	4822 122 32893	100 nF	5V
2752	4822 124 41516	47 µF	16V
2753	4822 122 31797	22 nF	

RESISTORS

3001	4822 116 52201	75 Ω
3002	4822 051 10473	47 kΩ
3003	4822 051 10101	100 Ω
3004	4822 051 20222	2.2 kΩ
3005	4822 051 10151	150 Ω
3006	4822 051 10472	4.7 kΩ
3007	4822 051 10182	1.8 kΩ
3008	4822 051 10102	1 kΩ
3009	4822 051 10472	4.7 kΩ
3012	4822 051 10472	4.7 kΩ
3013	4822 051 10104	100 kΩ
3014	4822 051 10103	10 kΩ
3015	4822 051 10102	1 kΩ
3016	4822 051 10103	10 kΩ
3017	4822 051 10102	2.2 kΩ
3018	4822 051 20222	2.2 kΩ
3019	4822 051 10822	8.2 kΩ
3020	4822 051 20222	2.2 kΩ
3021	4822 051 10472	4.7 kΩ
3022	4822 051 10434	560 kΩ
3023	4822 051 10152	1.5 kΩ
3024	4822 051 10271	270 Ω
3025	4822 051 10272	2.7 kΩ
3026	4822 051 10152	1.5 kΩ
3027	4822 051 10152	1.5 kΩ
3028	4822 051 10152	1.5 kΩ
3029	4822 051 10151	150 Ω
3030	4822 051 10182	1.8 kΩ
3031	4822 051 10182	1.8 kΩ
3032	4822 051 10153	15 kΩ
3033	4822 100 11633	47 kΩ
3034	4822 051 10274	270 kΩ
3035	4822 100 11633	47 kΩ
3036	4822 051 10105	1 MΩ
3037	4822 051 10102	1 kΩ
3038	4822 051 10102	1 kΩ
3039	4822 051 10472	4.7 kΩ
3040	4822 051 10472	4.7 kΩ
3041	4822 100 11633	47 kΩ
3042	4822 051 10912	9.1 kΩ
3043	4822 051 10272	2.7 kΩ
3044	4822 100 11632	2.2 kΩ
3045	4822 051 10272	2.7 kΩ
3047	4822 051 10822	8.2 kΩ
3048	4822 100 11632	2.2 kΩ
3049	4822 101 11034	22 kΩ
3050	4822 116 52256	2.2 kΩ
3051	4822 051 10152	1.5 kΩ
3052	4822 116 52204	1 kΩ
3053	4822 051 10152	1.5 kΩ
3054	4822 051 10102	1 kΩ
3055	4822 051 10103	10 kΩ
3056	4822 051 10562	5.6 kΩ
3057	4822 051 10102	1 kΩ
3058	4822 051 10102	1 kΩ
3059	4822 051 10102	1 kΩ
3060	4822 051 10331	330 Ω
3061	4822 051 10471	470 Ω
3062	4822 051 10561	560 Ω
3063	4822 051 10561	560 Ω
3064	4822 051 10561	560 Ω
3065	4822 051 10681	680 Ω
3066	4822 051 10471	470 Ω
3067	4822 051 10331	330 Ω
3068	4822 051 10102	1 kΩ
3069	4822 051 10471	470 Ω
3070	4822 051 10471	470 Ω
3071	4822 051 20222	2.2 kΩ
3072	4822 100 11602	10 kΩ
3073	4822 051 10821	820 Ω
3074	4822 051 10102	1 kΩ
3075	4822 051 10759	75 Ω
3076	4822 051 10759	75 Ω
3077	4822 051 10229	22 Ω
3078	4822 051 10471	470 Ω
3079	4822 051 20222	2.2 kΩ
3080	4822 100 11633	47 kΩ (only for LP)
3081	4822 051 10102	1 kΩ
3082	4822 116 52175	100 Ω
3083	4822 116 52233	10 kΩ
3084	4822 116 52204	1 kΩ
3085	4822 116 52204	1 kΩ
3087	4822 116 52204	1 kΩ
3101	4822 051 10102	1 kΩ
3102	4822 051 20222	2.2 kΩ
3103	4822 051 10682	6.8 kΩ
3104	4822 051 10271	270 Ω
3105	4822 051 10152	1.5 kΩ
3106	4822 051 10152	1.5 kΩ
3107	4822 051 10102	1 kΩ
3108	4822 051 10102	1 kΩ
3109	4822 051 10561	560 Ω
3110	4822 051 10102	1 kΩ
3111	4822 051 10471	470 Ω
3112	4822 051 10561	560 Ω
3115	4822 051 10105	1 MΩ (only for PAL/SECAM/B/G)
3116	4822 051 10105	1 MΩ (only for PAL/SECAM/B/G)
3117	4822 051 10102	1 kΩ
3118	4822 051 20222	2.2 kΩ
3119	4822 051 10822	8.2 kΩ (only for PAL/SECAM/B/G)
3120	4822 051 10472	4.7 kΩ
3121	4822 116 52233	10 kΩ (only for PAL/SECAM/B/G)

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3122	4822 051 10821	820 Ω (only for PAL/SECAM/B/G)
3123	4822 051 10102	1 kΩ
3124	4822 051 10274	270 kΩ
3125	4822 051 10333	33 kΩ
3126	4822 101 11035	100 kΩ
3127	4822 051 10182	1.8 kΩ
3128	4822 051 10182	1.8 kΩ
3129	4822 051 10223	22 kΩ
3130	4822 051 10152	1.5 kΩ
3131	4822 051 10332	3.3 kΩ
3132	4822 051 10103	10 kΩ
3133	4822 051 10223	22 kΩ (only for PAL/SECAM/B/G)
3134	4822 051 10472	4.7 kΩ
3135	4822 051 10682	6.8 kΩ
3136	4822 051 20222	2.2 kΩ
3137	4822 051 10821	820 Ω
3138	4822 051 10221	220 Ω
3139	4822 051 10152	1.5 kΩ
3141	4822 116 52284	47 kΩ
3143	4822 051 10103	10 kΩ
3145	4822 051 10822	8.2 kΩ
3147	4822 051 10151	150 Ω
3148	4822 051 10102	1 kΩ
3149	4822 116 52234	100 kΩ
3150	4822 051 10274	270 kΩ
3201	4822 051 10682	6.8 kΩ (only for LP)
3202	4822 051 10103	10 kΩ (only for LP)
3203	4822 051 10102	1 kΩ (only for LP)
3204	4822 051 10102	1 kΩ (only for LP)
3205	4822 051 10103	10 kΩ (only for LP)
3206	4822 051 10272	2.7 kΩ (only for LP)
3207	4822 051 10182	1.8 kΩ (only for LP)
3211	4822 051 10391	390 Ω (only for LP)
3212	4822 051 20222	2.2 kΩ (only for LP)
3213	4822 051 10104	100 kΩ (only for LP)
3214	4822 051 10821	820 Ω (only for LP)
3215	4822 051 10102	1 kΩ (only for LP)
3216	4822 051 10471	470 Ω (only for LP)
3217	4822 051 10471	470 Ω (only for LP)
3218	4822 051 10152	1.5 kΩ (only for LP)
3219	4822 051 10562	5.6 kΩ (only for LP)
3300	4822 050 12203	22 kΩ
3301	4822 050 18202	8.2 kΩ
3302	4822 050 12203	22 kΩ
3303	4822 050 12204	220 kΩ
3305	4822 050 17503	75 kΩ
3306	4822 050 12204	220 kΩ
3307	4822 050 17503	75 kΩ
3308	4822 116 52233	10 kΩ
3309	4822 051 10472	4.7 kΩ
3310	4822 051 10221	220 Ω
3311	4822 116 52175	100 Ω
3312	4822 051 10569	56 Ω
3313	4822 051 10471	470 Ω
3314	4822 116 40151	5.6 Ω
3315	4822 051 10331	330 Ω
3316	4822 051 10471	470 Ω
3317	4822 051 10472	4.7 kΩ
3318	4822 051 10104	100 kΩ
3319	4822 051 10104	100 kΩ
3320	4822 051 10104	100 kΩ
3321	4822 051 10474	470 kΩ
3322	4822 051 10104	100 kΩ
3323	4822 051 10474	470 kΩ
3324	4822 116 52283	4.7 kΩ

3325	4822 051 10472	4.7 kΩ
3327	4822 101 11035	100 kΩ
3328	4822 116 52204	1 kΩ
3329	4822 116 52204	1 kΩ
3330	4822 051 10103	10 kΩ
3331	4822 116 81202	62 kΩ
3332	4822 051 10102	1 kΩ
3333	4822 116 52204	1 kΩ
3334	4822 116 52204	1 kΩ
3335	4822 051 10472	4.7 kΩ
3336	4822 116 52251	18 kΩ
3337	4822 051 10472	4.7 kΩ
3338	4822 051 10102	1 kΩ
3339	4822 116 52204	1 kΩ
3340	4822 051 10103	10 kΩ
3341	4822 116 52233	10 kΩ
3342	4822 051 10103	10 kΩ
3343	4822 116 52204	1 kΩ
3344	4822 051 10472	4.7 kΩ
3345	4822 051 10103	10 kΩ
3346	4822 051 10103	10 kΩ
3347	4822 051 10472	4.7 kΩ
3348	4822 051 10472	4.7 kΩ
3349	4822 116 52283	4.7 kΩ
3350	4822 051 10472	4.7 kΩ
3351	4822 051 10472	4.7 kΩ
3352	4822 116 81202	62 kΩ
3353	4822 051 10103	10 kΩ
3354	4822 051 10103	10 kΩ
3355	4822 051 10472	4.7 kΩ
3356	4822 051 10474	470 kΩ
3358	4822 051 10103	10 kΩ
3359	4822 051 10472	4.7 kΩ
3360	4822 116 52283	4.7 kΩ
3362	4822 051 10223	22 kΩ
3363	4822 051 10223	22 kΩ
3364	4822 050 11003	10 kΩ
3365	4822 051 10223	22 kΩ
3366	4822 051 10153	15 kΩ
3367	4822 116 52233	10 kΩ
3368	4822 116 52233	10 kΩ
3369	4822 051 10474	470 kΩ
3370	4822 051 10472	4.7 kΩ
3371	4822 116 81202	62 kΩ
3372	4822 051 10103	10 kΩ
3373	4822 051 10471	470 Ω
3376	4822 051 10103	10 kΩ
3377	4822 051 10393	39 kΩ
3378	4822 051 10471	470 Ω
3379	4822 051 10101	100 Ω
3380	4822 051 10471	470 Ω
3382	4822 051 10101	100 Ω
3383	4822 051 10101	100 Ω
3384	4822 051 10101	100 Ω
3385	4822 051 10472	4.7 kΩ
3386	4822 116 52204	1 kΩ
3388	4822 050 16204	620 kΩ
3390	4822 051 10339	33 Ω
3391	4822 116 52175	100 Ω
3392	4822 116 52175	100 Ω
3393	4822 116 52175	100 Ω
3394	4822 051 10102	1 kΩ
3395	4822 116 80176	1 Ω
3396	4822 051 10102	1 kΩ
3397	4822 051 10102	1 kΩ
3400	4822 051 10472	4.7 kΩ
3401	4822 050 12703	27 kΩ

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3402	4822 051 10472	4.7 kΩ
3403	4822 051 10472	4.7 kΩ
3404	4822 051 10103	10 kΩ
3412	4822 116 52283	4.7 kΩ
3413	4822 051 10102	1 kΩ
3415	4822 051 10102	1 kΩ
3416	4822 051 10472	4.7 kΩ
3417	4822 051 10223	22 kΩ
3418	4822 116 52234	100 kΩ
3419	4822 051 10224	220 kΩ
3420	4822 051 10472	4.7 kΩ
3421	4822 051 10471	470 Ω
3422	4822 051 10472	4.7 kΩ
3423	4822 051 10221	220 Ω
3425	4822 051 10472	4.7 kΩ
3430	4822 051 10102	1 kΩ
3431	4822 116 52283	4.7 kΩ
3535	4822 051 10102	1 kΩ
3539	4822 051 10561	560 Ω
3541	4822 116 52217	270 Ω
3547	4822 051 10102	1.0 kΩ
3548	4822 116 52269	33 Ω
3549	4822 051 10152	1.5 kΩ
3550	4822 051 10102	1 kΩ
3587	4822 051 10391	390 Ω
3601	4822 116 52269	3.3 kΩ
3602	4822 116 52269	3.3 kΩ
3603	4822 116 52269	3.3 kΩ
3604	4822 051 10332	3.3 kΩ
3605	4822 116 52217	270 Ω
3606	4822 116 52217	270 Ω
3607	4822 051 10103	10 kΩ
3608	4822 051 10223	22 kΩ
3609	4822 051 10102	1 kΩ
3610	4822 051 10471	470 Ω
3611	4822 051 10182	1.8 kΩ
3612	4822 051 10103	10 kΩ
3613	4822 051 10471	470 Ω
3614	4822 051 10394	390 kΩ
3615	4822 051 10123	12 kΩ
3616	4822 051 10562	5.6 kΩ
3617	4822 100 11602	10 kΩ
3618	4822 051 10105	1 MΩ
3619	4822 051 10104	100 kΩ
3620	4822 051 10473	47 kΩ
3621	4822 051 10104	100 kΩ
3622	4822 051 10271	270 Ω
3623	4822 051 10104	100 kΩ
3625	4822 051 10104	100 kΩ
3626	4822 051 10472	4.7 kΩ
3627	4822 051 10332	3.3 kΩ
3628	4822 051 20183	18 kΩ
3629	4822 051 10104	100 kΩ
3630	4822 051 10339	33 Ω
3660	4822 051 10229	22 Ω
3661	4822 051 10561	560 Ω
3662	4822 051 10272	2.7 kΩ
3663	4822 116 80691	270 Ω
3664	4822 051 10473	47 kΩ
3665	4822 101 11035	100 kΩ
3701	4822 051 10472	4.7 kΩ
3702	4822 051 10101	100 Ω
3703	4822 051 10101	100 Ω
3704	4822 051 10122	1.2 kΩ
3705	4822 051 20183	18 kΩ
3706	4822 051 10101	100 Ω
3709	4822 051 10105	1 MΩ (only for VPS)
3711	4822 051 10562	5.6 kΩ (only for VPS)
3712	4822 051 10101	100 Ω (only for VPS)
3713	4822 116 52235	1 MΩ (only for VPS)
3714	4822 051 10104	100 kΩ (only for VPS)
3715	4822 051 10332	3.3 kΩ (only for VPS)
3716	4822 051 10682	6.8 kΩ (only for VPS)
3717	4822 051 10105	1 MΩ (only for VPS)
3718	4822 051 10101	100 Ω (only for VPS)
3719	4822 051 10101	100 Ω
3730	4822 051 10473	47 kΩ
3735	4822 051 10102	1 kΩ
3736	4822 051 10223	22 kΩ
3737	4822 051 10473	47 kΩ
3738	4822 051 10102	1 kΩ
3740	4822 051 10223	22 kΩ
3741	4822 051 10223	22 kΩ
3744	4822 051 10223	22 kΩ
3745	4822 051 10682	6.8 kΩ
3746	4822 051 10331	330 Ω
3747	4822 100 11639	22 kΩ
3798	4822 050 21502	1.5 kΩ
3799	4822 051 10102	1 kΩ
3801	4822 051 10008	0 Ω
3824	4822 051 10008	0 Ω
3825	4822 051 10008	0 Ω (only for PALI)
3826	4822 051 10008	0 Ω
3827	4822 051 10008	0 Ω
3828	4822 051 10008	0 Ω (only for PALI)
3829	4822 051 10008	0 Ω
3830	4822 051 10008	0 Ω
3831	4822 051 10008	0 Ω
3832	4822 051 10008	0 Ω
3834	4822 051 10008	0 Ω
3836	4822 051 10008	0 Ω
3840	4822 051 10008	0 Ω
3842	4822 051 10008	0 Ω
3843	4822 051 10008	0 Ω
3844	4822 051 10008	0 Ω
3845	4822 051 10008	0 Ω (not for LP)
3846	4822 051 10008	0 Ω
3847	4822 051 10008	0 Ω
3848	4822 051 10008	0 Ω
3849	4822 051 10008	0 Ω
3850	4822 051 10008	0 Ω
3851	4822 051 10008	0 Ω
3853	4822 051 10008	0 Ω
3854	4822 051 10008	0 Ω
3855	4822 051 10008	0 Ω
3856	4822 051 10008	0 Ω
3857	4822 051 10008	0 Ω
3858	4822 051 10008	0 Ω
3859	4822 051 10008	0 Ω
3860	4822 051 10008	0 Ω
3861	4822 051 10008	0 Ω
3862	4822 051 10008	0 Ω
3863	4822 051 10008	0 Ω
3864	4822 051 10008	0 Ω
3865	4822 051 10008	0 Ω
3866	4822 051 10008	0 Ω
3867	4822 051 10008	0 Ω
3869	4822 051 10008	0 Ω
3870	4822 051 10008	0 Ω
3872	4822 051 10008	0 Ω
3876	4822 051 10008	0 Ω
3877	4822 051 10008	0 Ω
3878	4822 051 10008	0 Ω
3880	4822 051 10008	0 Ω

Family board JFBU

3881	4822 051 10008	0 Ω
3882	4822 051 10008	0 Ω
3883	4822 051 10008	0 Ω
3884	4822 051 10008	0 Ω
3885	4822 051 10008	0 Ω
3886	4822 051 10008	0 Ω
3887	4822 051 10008	0 Ω
3888	4822 051 10008	0 Ω
3889	4822 051 10008	0 Ω
3890	4822 051 10008	0 Ω
3892	4822 051 10008	0 Ω
3893	4822 051 10008	0 Ω
3896	4822 051 10008	0 Ω
3899	4822 051 10008	0 Ω
3901	4822 051 10008	0 Ω
3902	4822 051 10008	0 Ω
3903	4822 051 10008	0 Ω
3904	4822 051 10008	0 Ω
3905	4822 051 10008	0 Ω
3906	4822 051 10008	0 Ω
3907	4822 051 10008	0 Ω
3908	4822 051 10008	0 Ω
3909	4822 051 10008	0 Ω
3910	4822 051 10008	0 Ω
3912	4822 051 10008	0 Ω (not for LP)
3913	4822 051 10008	0 Ω
3915	4822 051 10008	0 Ω (not for LP)
3916	4822 051 10008	0 Ω
3917	4822 051 10008	0 Ω
3918	4822 051 10008	0 Ω
3919	4822 051 10008	0 Ω
3921	4822 051 10008	0 Ω
3922	4822 051 10008	0 Ω
3923	4822 051 10008	0 Ω
3924	4822 051 10008	0 Ω (not for LP)
3925	4822 051 10008	0 Ω

COILS

5001	4822 157 60383
5002	4822 156 21454
5003	4822 157 62768
5004	4822 157 53265
5005	4822 157 52286
5006	4822 157 52286
5007	4822 157 52842
5008	4822 157 53251
5009	4822 157 52842
5010	4822 157 53265
5011	4822 157 53253
5012	4822 157 52842
5013	4822 157 60082
5014	4822 157 53951
5015	4822 157 60082
5016	4822 157 53253
5017	4822 157 52286
5018	4822 157 53251
5101	4822 157 60385
5102	4822 157 60384
5103	4822 157 53251
5104	4822 157 53252
5105	4822 157 53951
5106	4822 157 53251
5107	4822 157 53252
5108	4822 157 52265
5109	4822 157 53253
5110	4822 157 60386
5111	4822 320 40168
5201	4822 157 53251 (only for LP)
5202	4822 320 40096 (only for LP)
5203	4822 157 53251 (only for LP)
5300	4822 157 53005
5301	4822 157 52285
5302	4822 157 53005
5502	4822 157 52285
5503	4822 157 52285
5601	4822 157 53249
5660	4822 157 53531
5701	4822 157 53529
5710	4822 157 52286
5730	4822 157 50961
5740	4822 157 60503
5741	4822 157 52842
5742	4822 157 53251

DIODES

6001	4822 130 30621	1N4148
6002	4822 130 30621	1N4148
6003	4822 130 33668	BZX55/B9V1
6004	4822 130 30621	1N4148
6101	4822 130 81268	SD101A
6201	4822 130 30621	1N4148 (only for LP)
6300	4822 130 32462	RGP10-B
6301	4822 130 30621	1N4148
6302	4822 130 30621	1N4148
6522	5322 130 34834	BZX79-C3V6
6701	4822 130 30621	1N4148

TRANSISTORS & IC's

7001	4822 130 41715	BC328-40
7002	5322 130 41983	BC858B
7003	4822 130 60383	BF824
7004	5322 130 41983	BC858B
7006	5322 130 44336	BSV52
7007	5322 130 41983	BC858B
7008	4822 130 42353	BFS19
7009	4822 130 60383	BF824
7010	4822 130 42353	BFS19
7011	4822 130 42353	BFS19
7012	5322 130 41983	BC858B
7013	4822 130 60145	DTC124EK
7014	5322 130 41982	BC848B
7015	4822 130 60145	DTC124EK
7051	4822 209 73579	AN3236K
7052	4822 209 73578	MSM6965-3RS
7053	4822 209 63099	TC4030BFN (ELP)
7101	5322 130 41982	BC848B
7102	4822 130 42353	BFS19
7103	5322 130 41982	BC848B
7104	5322 130 41983	BC858B
7105	5322 130 41982	BC848B
7106	5322 130 41982	BC8
7107	5322 130 41983	BC8
7108	4822 130 60145	DTC
7109	5322 130 41982	BC8
7110	5322 130 41982	BC8
7151	4822 209 60091	TA8
7152	4822 209 60376	LA7 (only
7201	5322 130 41982	BC8
7202	5322 130 41982	BC8
7203	4822 130 42353	BFS

48B
58B
124EK
48B
48B
644N
311
for PAL/SECAM/B/G
48B (only for LP)
48B (only for LP)
19 (only for LP)

Family board JFBU

7204	5322 130 41982	BC848B (only for LP)
7251	4822 209 60172	AN3494NK (only for LP)
7300	5322 130 41982	BC848B
7301	5322 130 41982	BC848B
7302	4822 130 60492	BC376
7303	5322 130 41982	BC848B
7304	5322 130 41983	BC858B
7305	5322 130 44336	BSV52
7306	5322 130 41982	BC848B
7307	5322 130 41982	BC848B
7308	5322 130 41982	BC848B
7309	4822 130 60089	BD436
7350	4822 209 60175	LM358M
7351	4822 209 62458	SAA1310
7352	4822 209 63098	TC4052BFN ELP
7353	4822 209 60177	LM339M
7354	4822 209 63102	P8052-JUTD1-1U/R9408
7355	4822 209 83331	SAD1009P
7356	4822 209 60129	TDA8136 (STM)
7357	4822 209 80797	LM393N
7358	4822 209 60046	BA6432S
7359	4822 209 62457	TDA5140A/C1
7360	4822 209 63101	TC4071BFN ELP
7361	5322 130 41982	BC848B
7511	5322 130 41982	BC848B
7515	5322 130 41983	BC858B
7516	4822 130 41344	BC337-40
7601	4822 209 60074	BA7766AS
7602	5322 130 41982	BC848B
7660	4822 130 41715	BC328-40
7661	4822 130 41344	BC337-40
7710	4822 209 73306	SDA5642 (only for VPS)
7730	4822 130 41715	BC328-40
7731	5322 130 41982	BC848B
7732	5322 130 41982	BC848B
7740	4822 209 63061	TDA3842

Headamplifier HV4/2

4822 214 32734 HV4/2
(for VR502 and VR70., 7SB02)

Main Erase Oscillator MEO

CONNECTOR

	4822 264 40256	3 fold

CAPACITORS

2001	4822 124 22451	22 µF	
2002	4822 122 32972	1 nF	
2003	4822 121 43145	33 nF	50 V
2004	4822 121 51304	10 nF	50 V
2005	4822 121 51307	27 nF	50 V
2006	4822 124 22451	22 µF	

RESISTORS

3001	5322 116 80438	330 Ω
3002	5322 116 80348	330 Ω
3003	4822 116 81172	8.2 kΩ
3004	4822 111 90248	2.2 kΩ
3005	4822 111 90381	1.5 Ω
3006	5322 116 80441	33 kΩ
3007	5322 116 80427	1 kΩ
3008	4822 111 90251	22 kΩ

COILS

5001	4822 157 53531

DIODE

6001	5322 130 31928	BAS16

TRANSISTORS

7001	5322 130 41983	BC858B
7002	4822 130 60145	DTC124EK
7003	4822 130 42615	BC817-40

FM-Audio Signal panel JAF

CONNECTORS

0007	4822 267 51051	SOCKET
0008	4822 267 40624	SOCKET 5-PIN
0009	4822 267 50621	SOCKET 7-PIN
0010	4822 267 40697	SOCKET 6-PIN
0011	4822 265 40475	SOCKET 8-PIN
0013	4822 267 50723	SOCKET 13-PIN
0014	4822 267 50661	SCART
0015	4822 265 41077	CINCH-CONNECTOR
0016	4822 267 40697	SOCKET 6-PIN
0017	4822 265 40475	SOCKET 8-PIN

MISCELLANEOUS

1050	4822 242 72165	FILTER 1,4 MHz
1150	4822 242 72166	FILTER 1,8 MHz
1250	4822 071 51601	FUSE 160 MA
1750	4822 242 73809	CRYSTAL 10 MHz
1760	4822 242 70714	CER.FILTER 5,5 MHz
1760	4822 242 71841	CER.FILTER 6,0 MHz (only for PALI)
1761	4822 242 70485	CER.FILTER 5,74 MHz
1770	4822 242 72302	5,85 MHz
1770	4822 242 73822	CRYSTAL 6.552 MHz (only for PALI)
1771	4822 242 72304	5,824 MHz
1772	4822 071 51601	FUSE 160 MHz
1840	4822 242 73796	SAW FILTER OFWG9201
1860	4822 071 55001	FUSE 500 MA

CAPACITORS

2001	4822 124 42097	22 µF	16 V
2002	4822 122 31781	1.5 nF	
2003	4822 122 32893	100 nF	
2004	4822 122 32893	100 nF	5 V
2005	4822 126 11142	470 pF	
2006	4822 122 31765	100 pF	
2007	4822 124 41576	2.2 µF	50 V
2008	5322 122 33446	3.3 nF	
2009	4822 124 41521	10 µF	25 V
2010	4822 124 41576	2.2 µF	50 V
2011	4822 124 42097	22 µF	16 V
2012	4822 124 41521	10 µF	25 V
2013	4822 124 22787	6.8 µF	25 V
2014	4822 122 31797	22 nF	
2015	4822 124 41576	2.2 µF	50 V
2016	4822 122 32442	10 nF	
2017	4822 124 41697	47 µF	16 V
2018	4822 124 42096	220 µF	6,3 V
2019	4822 122 31644	2.2 nF	
2020	4822 124 42097	22 µF	16 V
2021	4822 122 32482	22 pF	
2022	4822 124 41643	100 µF	16 V
2023	4822 124 42097	22 µF	16 V
2024	4822 124 41521	10 µF	25 V
2025	4822 124 41576	2.2 µF	50 V
2027	4822 124 41643	100 µF	16 V
2101	4822 124 42097	22 µF	16 V
2102	5322 122 31647	1 nF	
2103	4822 122 32893	100 nF	5 V
2104	4822 122 32893	100 nF	5 V
2105	4822 126 11142	470 pF	
2106	4822 122 31765	100 pF	
2107	4822 124 41576	2.2 µF	50 V
2108	5322 122 33446	3.3 nF	
2109	4822 124 41521	10 µF	25 V
2110	4822 124 41576	2.2 µF	50 V
2111	4822 124 42097	22 µF	16 V
2112	4822 124 41521	10 µF	25 V
2113	4822 124 22787	6.8 MF	25 V
2114	4822 122 31797	22 nF	
2115	4822 124 41576	2.2 µF	50 V
2116	4822 122 32442	10 nF	
2117	4822 124 41697	47 µF	16 V
2118	4822 124 42096	220 µF	6,3 V
2119	4822 122 31644	2.2 nF	
2120	4822 124 42097	22 µF	16 V
2121	4822 122 32482	22 pF	
2122	4822 124 41643	100 µF	16 V
2123	4822 124 42097	22 µF	16 V
2124	4822 124 41521	10 µF	25 V
2125	4822 124 41576	2.2 µF	50 V
2127	4822 124 41643	100 µF	16 V
2200	4822 122 31797	22 nF	
2201	4822 122 31797	22 nF	
2202	4822 122 31839	82 pF	
2203	4822 122 31765	100 pF	
2204	4822 122 31797	22 nF	
2205	4822 124 42097	22 µF	16 V
2206	4822 122 31775	680 pF	
2207	4822 122 31797	22 nF	
2208	4822 122 31797	22 nF.	
2209	4822 124 41643	100 µF	16 V
2210	4822 122 31765	100 pF	
2211	4822 124 40196	220 µF	16 V
2212	4822 124 41576	2.2 µF	50 V
2213	4822 122 31797	22 nF	
2214	4822 124 41643	100 µF	16 V
2215	4822 122 31797	22 nF	
2216	4822 124 41521	10 µF	25 V
2217	4822 122 31797	22 nF	
2218	4822 122 31797	22 nF	
2219	4822 124 41576	2.2 µF	50 V
2220	4822 124 41506	47 µF	16 V
2305	4822 122 31727	470 pF	
2318	4822 122 31644	2.2 nF	
2321	4822 122 31727	470 pF	
2326	4822 122 31644	2.2 nF	
2330	4822 122 31644	2.2 nF	
2331	4822 122 31727	470 pF	
2332	4822 122 32893	100 nF	
2333	4822 122 32893	100 nF	5 V
2334	4822 122 31727	470 pF	
2405	4822 122 31727	470 pF	
2418	4822 122 31644	2.2 nF	
2421	4822 122 31727	470 pF	
2426	4822 122 31644	2.2 nF	
2430	4822 122 31644	2.2 nF	
2431	4822 122 31727	470 pF	
2432	4822 122 32893	100 nF	
2433	4822 122 32893	100 nF	5 V
2434	4822 122 31727	470 pF	
2508	4822 122 32442	10 nF	
2510	4822 124 41697	47 µF	16 V
2512	4822 124 41697	47 µF	16 V
2519	4822 124 41521	10 µF	25 V
2525	4822 122 32893	100 nF	5 V
2607	4822 122 31797	22 nF	
2620	4822 124 41643	100 µF	16 V
2633	4822 122 32893	100 nF	5 V
2634	4822 122 32893	100 nF	5 V
2635	4822 122 31727	470 pF	
2740	4822 122 32504	15 pF	
2741	4822 122 32504	15 pF	
2743	4822 122 31797	22 nF	
2744	4822 122 31797	22 nF	

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2750	4822 124 41521	10 µF	25 V
2751	4822 124 41521	10 µF	25 V
2752	4822 124 41697	47 µF	16 V
2753	4822 124 41697	47 µF	16 V
2754	4822 121 42408	220 nF	63 V
2755	4822 122 31797	22 nF	
2756	4822 124 41521	10 µF	25 V
2757	4822 124 41521	10 µF	25 V
2758	4822 124 42097	22 µF	16 V
2761	5322 121 42386	100 nF	63 V
2762	4822 124 41576	2.2 µF	50 V
2763	4822 124 41576	2.2 µF	50 V
2764	4822 124 42097	22 µF	16 V
2765	4822 122 31797	22 nF	
2769	4822 124 40242	1 µF	50 V
2772	4822 125 50394	4,2-20 pF	
2773	4822 122 32504	15 pF	
2774	4822 122 31769	18 pF	
2775	4822 122 31774	56 pF	
2776	4822 121 51252	470 nF	63 V
2777	4822 121 51252	470 nF	63 V
2778	4822 122 32442	10 nF	
2779	4822 124 40242	1 µF	50 V
2780	4822 122 32442	10 nF	
2781	4822 122 32442	10 nF	
2782	4822 122 32442	10 nF	
2783	4822 122 32893	100 nF	5 V
2784	4822 122 32893	100 nF	5 V
2785	4822 122 31965	220 pF	
2786	4822 122 31965	220 pF	
2787	4822 122 32893	100 nF	5 V
2788	4822 122 32893	100 nF	5 V
2789	4822 122 32442	10 nF	
2790	4822 122 32442	10 nF	
2791	4822 124 40242	1 µF	50 V
2792	4822 122 31774	56 pF	
2794	4822 122 31772	47 pF	
2795	4822 122 31769	18 pF	
2796	4822 122 32893	100 nF	5 V
2797	4822 122 32442	10 nF	
2798	4822 122 32442	10 nF	
2799	4822 122 32893	100 nF	5 V
2800	4822 122 31772	47 pF	
2801	4822 122 32893	100 nF	5 V
2802	4822 122 31769	18 pF	
2803	4822 125 50412	7,5-50 pF	
2804	4822 122 32442	10 nF	
2805	4822 122 31765	100 pF	
2806	4822 122 31797	22 nF	
2807	4822 124 42097	22 µF	16 V
2810	4822 122 32893	100 nF	5 V
2811	4822 124 41643	100 µF	16 V
2820	4822 122 33485	56 nF	
2820	4822 122 33608	39 nF (only for PALI)	
2821	4822 122 31784	4.7 nF	
2821	4822 122 32566	3.9 nF (only for PALI)	
2822	4822 122 33485	56 nF	
2822	4822 122 33608	39 nF (only for PALI)	
2823	4822 122 31784	4.7 nF	
2823	4822 122 32566	3.9 nF (only for PALI)	
2824	4822 122 32893	100 nF	5 V
2828	4822 122 32893	100 nF	5 V
2829	4822 124 41643	100 µF	16 V
2830	4822 124 41521	10 µF	25 V
2831	5322 121 42386	100 nF	63 V
2833	4822 124 41521	10 µF	25 V (only for NICAM)
2834	4822 124 41521	10 µF	25 V (only for NICAM)
2835	4822 124 41521	10 µF	25 V
2837	4822 124 42097	22 µF	16 V (only for NICAM)

2840	4822 122 32482	22 pF	63 V
2860	4822 124 41643	100 µF	16 V

RESISTORS

3001	4822 051 10102	1 kΩ
3002	4822 051 10102	1 kΩ
3003	4822 051 10152	1.5 kΩ
3004	4822 100 11632	2.2 kΩ
3005	4822 051 10682	6.8 kΩ
3006	4822 101 11064	4.7 kΩ
3007	4822 051 10103	10 kΩ
3008	4822 100 11633	47 kΩ
3009	4822 051 10105	1 MΩΩ
3010	4822 051 20222	2.2 kΩ
3011	4822 116 52257	22 kΩ
3012	4822 051 10221	220 Ω
3013	4822 051 10473	47 kΩ
3014	4822 051 20222	2.2 kΩ
3015	4822 116 90536	120 Ω
3016	4822 051 10103	10 kΩ
3017	4822 051 10103	10 kΩ
3018	4822 051 10102	1 kΩ
3019	4822 051 10104	100 kΩ
3020	4822 051 20183	18 kΩ
3021	4822 101 11034	22 kΩ
3023	4822 051 10104	100 kΩ
3024	4822 051 10153	15 kΩ
3026	4822 051 20222	2.2 kΩ
3027	4822 051 10102	1 kΩ
3101	4822 051 10102	1 kΩ
3102	4822 051 10102	1 kΩ
3103	4822 051 10152	1.5 kΩ
3104	4822 100 11632	2.2 kΩ
3105	4822 051 10472	4.7 kΩ
3106	4822 101 11064	4.7 kΩ
3107	4822 051 10103	10 kΩ
3108	4822 100 11633	47 kΩ
3109	4822 051 10105	1 MΩΩ
3110	4822 116 52256	2.2 kΩ
3111	4822 051 10223	22 kΩ
3112	4822 116 52215	220 Ω
3113	4822 051 10473	47 kΩ
3114	4822 051 20222	2.2 kΩ
3115	4822 116 90536	120 Ω
3116	4822 051 10103	10 kΩ
3117	4822 051 10103	10 kΩ
3118	4822 051 10102	1 kΩ
3119	4822 051 10104	100 kΩ
3120	4822 116 52251	18 kΩ
3121	4822 101 11034	22 kΩ
3123	4822 051 10104	100 kΩ
3124	4822 051 10153	15 kΩ
3126	4822 051 20222	2.2 kΩ
3127	4822 051 10102	1 kΩ
3201	4822 116 52256	2.2 kΩ
3202	4822 051 10152	1.5 kΩ
3203	4822 051 10152	1.5 kΩ
3204	4822 116 52191	33 Ω
3205	4822 051 10103	10 kΩ
3206	4822 116 52256	2.2 kΩ
3207	4822 116 52284	47 kΩ
3208	5322 116 80609	7.5 kΩ
3209	4822 051 10683	68 kΩ
3210	4822 100 11633	47 kΩ
3211	4822 116 52233	10 kΩ
3212	4822 051 10473	47 kΩ
3213	4822 051 10473	47 kΩ
3214	4822 051 10105	1 MΩΩ

FM-Audio Signal panel JAF

3215	4822 116 52245	150 kΩ
3216	4822 116 52263	2 kΩ
3217	4822 116 52233	10 kΩ
3218	4822 116 52257	22 kΩ
3219	4822 051 10335	3.3 MΩ
3220	4822 051 10102	1 kΩ
3221	4822 116 52233	10 kΩ
3222	4822 116 52284	47 kΩ
3223	4822 116 52234	100 kΩ
3224	4822 116 52234	100 kΩ
3225	4822 116 52233	10 kΩ
3226	4822 051 10103	10 kΩ
3227	4822 051 10473	47 kΩ
3228	4822 051 10473	47 kΩ
3229	4822 116 52257	22 kΩ
3230	4822 051 10154	150 kΩ
3231	4822 051 10224	220 kΩ
3232	4822 051 10104	100 kΩ
3233	4822 116 52296	6.8 kΩ
3234	4822 116 52233	10 kΩ
3235	4822 051 10104	100 kΩ
3236	4822 116 52234	100 kΩ
3360	4822 051 10224	220 kΩ
3361	4822 116 52175	100 Ω
3365	4822 116 52175	100 Ω
3382	4822 116 52175	100 Ω
3383	4822 051 10224	220 kΩ
3384	4822 116 52175	100 Ω
3385	4822 051 10224	220 kΩ
3386	4822 051 10224	220 kΩ
3387	4822 051 10224	220 kΩ
3388	4822 051 10224	220 kΩ
3389	4822 051 10101	100 Ω
3390	4822 051 10101	100 Ω
3391	4822 051 10224	220 kΩ
3392	4822 051 10104	100 kΩ
3393	4822 051 20222	2.2 kΩ
3394	4822 051 10224	220 kΩ
3460	4822 051 10224	220 kΩ
3461	4822 116 52175	100 Ω
3465	4822 116 52175	100 Ω
3482	4822 116 52175	100 Ω
3483	4822 051 10224	220 kΩ
3484	4822 116 52175	100 Ω
3485	4822 051 10224	220 kΩ
3486	4822 051 10224	220 kΩ
3487	4822 051 10224	220 kΩ
3488	4822 051 10224	220 kΩ
3489	4822 051 10101	100 Ω
3490	4822 051 10101	100 Ω
3491	4822 051 10224	220 kΩ
3492	4822 051 10104	100 kΩ
3493	4822 051 20222	2.2 kΩ
3494	4822 051 10224	220 kΩ
3500	4822 051 10153	15 kΩ
3500	4822 051 10103	10 kΩß
3500	4822 051 10223	22 kΩß
3500	4822 051 10333	33 kΩß
3500	4822 051 10102	1 kΩß
3500	4822 051 10332	3.3 kΩ
3500	4822 051 10152	1.5 kΩ
3500	4822 051 20222	2.2 kΩ
3502	4822 116 52197	56 Ω
3505	4822 051 10759	75 Ω
3540	4822 051 10102	1 kΩ
3541	4822 051 10473	47 kΩ
3542	4822 051 10153	15 kΩ
3543	4822 051 10103	10 kΩ
3557	4822 116 52204	1 kΩ

3558	4822 051 20222	2.2 kΩ
3559	4822 051 20222	2.2 kΩ
3567	4822 116 52197	56 Ω
3568	4822 051 20222	2.2 kΩ
3569	4822 051 10152	1.5 kΩ
3570	4822 051 10472	4.7 kΩ
3571	4822 051 10759	75 Ω
3579	4822 116 52217	270 Ω
3580	4822 116 52217	270 Ω
3581	4822 116 52191	33 Ω
3618	4822 051 10339	33 Ω
3619	4822 051 10103	10 kΩ
3623	4822 051 10103	10 kΩ
3624	4822 116 52303	8 kΩ
3625	4822 051 10103	10 kΩ
3626	4822 116 52243	1.5 kΩ
3627	4822 116 52204	1 kΩ
3635	4822 116 52234	100 kΩ
3636	4822 051 10473	47 kΩ
3637	4822 051 10104	100 kΩ
3639	4822 051 10224	220 kΩ
3676	4822 051 20222	2.2 kΩ
3695	4822 051 10472	4.7 kΩ
3699	4822 116 52217	270 Ω
3750	4822 051 10151	150 Ω
3751	4822 051 10151	150 Ω
3752	4822 051 10104	100 kΩ
3753	4822 051 10104	100 kΩ
3760	4822 051 10561	560 Ω
3761	4822 051 10561	560 Ω
3763	4822 051 10122	1.2 kΩ
3764	4822 051 10122	1.2 kΩ
3764	4822 051 10182	1.8 kΩ (only for NICAM)
3768	4822 101 11064	4.7 kΩ
3769	4822 051 10472	4.7 kΩ
3770	4822 051 10103	10 kΩ
3771	4822 051 10471	470 Ω
3772	4822 051 10561	560 Ω
3773	4822 051 10472	4.7 kΩ
3774	4822 051 10471	470 Ω
3775	4822 051 10689	68 Ω
3776	4822 051 10471	470 Ω
3777	4822 051 10154	150 kΩ
3778	4822 051 10154	150 kΩ
3779	4822 051 10511	510 Ω
3780	4822 051 10102	1 kΩ
3781	4822 051 10393	39 kΩ
3782	4822 051 10102	1 kΩ
3783	4822 051 10471	470 Ω
3784	4822 051 10393	39 kΩ
3785	4822 051 10229	22 Ω
3786	4822 051 10471	470 Ω
3802	4822 051 10479	47 Ω
3805	4822 051 10681	680 Ω (only for not NICAM)
3807	4822 051 10681	680 Ω (only for not NICAM)
3808	4822 051 10103	10 kΩ
3809	4822 051 10102	1 kΩ
3811	4822 051 10392	3.9 kΩ
3814	4822 051 10472	4.7 kΩ
3815	4822 051 10472	4.7 kΩ
3816	4822 051 20222	2.2 kΩ
3817	4822 051 10103	10 kΩ
3818	4822 051 10102	1 kΩ (only for NICAM)
3820	4822 051 10681	680 Ω
3820	4822 051 10102	1 kΩ (only for PALI)
3821	4822 051 10472	4.7 kΩ
3821	4822 051 10102	7.5 kΩ (only for PALI)
3822	4822 051 10681	680 Ω
3822	4822 051 10102	1 kΩ (only for PALI)

FM-Audio Signal panel JAF

3823	4822 051 10472	4.7 kΩ
3823	4822 051 10252	7.5 kΩ (only for PALI)
3824	4822 051 10153	15 kΩ
3825	4822 051 10103	10 kΩ (only for NICAM)
3826	4822 051 10103	10 kΩ (only for NICAM)
3830	4822 051 10104	100 kΩ (only for NICAM)
3831	4822 051 10104	100 kΩ (only for NICAM)
3832	4822 051 10104	100 kΩ
3833	4822 051 10102	1 kΩ
3834	4822 051 10103	10 kΩ
3835	4822 051 10332	3.3 kΩ
3836	4822 051 10471	470 Ω
3837	4822 116 52233	10 kΩ (only for NICAM)
3838	4822 051 10103	10 kΩ (only for NICAM)
3839	4822 051 10103	10 kΩ (only for NICAM)
3857	4822 051 10472	4.7 kΩ (only for NICAM)
3860	4822 051 10561	560 Ω
3861	4822 051 10561	560 Ω
3862	4822 116 52217	270 Ω
3863	4822 116 52217	270 Ω
3864	4822 116 52217	270 Ω
3865	4822 116 52217	270 Ω
3901	4822 051 10008	0 Ω
3902	4822 051 10008	0 Ω
3903	4822 051 10008	0 Ω
3905	4822 051 10008	0 Ω
3907	4822 051 10008	0 Ω
3908	4822 051 10008	0 Ω
3912	4822 051 10008	0 Ω
3913	4822 051 10008	0 Ω
3914	4822 051 10008	0 Ω
3915	4822 051 10008	0 Ω
3930	4822 051 10008	0 Ω
3931	4822 051 10008	0 Ω
3950	4822 051 10008	0 Ω
3953	4822 051 10008	0 Ω
3954	4822 051 10008	0 Ω (only for Multistereo)
3955	4822 051 10008	0 Ω
3956	4822 051 10008	0 Ω
3959	4822 051 10008	0 Ω
3961	4822 051 10008	0 Ω

COILS

5201	4822 157 53265	
5202	4822 157 52285	
5203	4822 157 52285	
5204	4822 157 50964	
5501	4822 157 53102	
5502	4822 157 53102	
5761	4822 157 62718	
5762	4822 157 62718	
5770	4822 157 60142	
5771	4822 157 60142	
5773	4822 242 72562	
5773	4822 242 72558	(only for PALI)
5800	4822 157 52403	
5801	4822 157 50964	
5810	4822 157 50964	
5822	4822 152 20558	
5861	4822 157 50964	

DIODES

6201	4822 130 30621	1N4148
6202	4822 130 30621	1N4148
6203	4822 130 30621	1N4148
6306	4822 130 80233	BZX79-C12
6307	4822 130 80233	BZX79-C12
6314	4822 130 80233	BZX79-C12
6315	4822 130 80233	BZX79-C12
6406	4822 130 80233	BZX79-C12
6407	4822 130 80233	BZX79-C12
6414	4822 130 80233	BZX79-C12
6415	4822 130 80233	BZX79-C12
6502	4822 130 30621	1N4148
6504	4822 130 80233	BZX79-C12
6505	4822 130 34278	BZX79-C6V8
6510	4822 130 30621	1N4148
6512	4822 130 34278	BZX79-C6V8
6513	4822 130 80233	BZX79-C12
6601	4822 130 31024	BZX79-C18
6603	4822 130 30621	1N4148
6609	4822 130 31024	BZX79-C18
6611	4822 130 30621	1N4148
6617	4822 130 34278	BZX79-C6V8
6619	4822 130 30621	1N4148
6770	4822 130 61219	BZX79-C10
6802	5322 130 34953	BB405B

TRANSISTORS & IC's

7001	5322 130 42136	BC848C
7002	5322 130 41983	BC858B
7003	5322 130 42136	BC848C
7101	5322 130 42136	BC848C
7102	5322 130 41983	BC858B
7103	5322 130 42136	BC848C
7201	5322 130 41983	BC858B
7202	4822 209 60131	TDA2515/N1
7203	4822 130 41715	BC328-40
7204	4822 130 61207	BC848
7205	4822 209 60127	AN3972FC
7206	5322 130 41982	BC848B
7207	4822 209 82362	NJM4556D
7208	4822 209 82513	BA6138
7209	5322 130 41982	BC848B
7210	4822 130 61207	BC848
7211	4822 130 61207	BC848
7212	4822 130 61207	BC848
7213	4822 130 61207	BC848
7322	5322 130 42136	BC848C
7333	4822 209 10263	TC4052BP
7422	5322 130 42136	BC848C
7512	5322 130 41982	BC848B
7517	5322 130 41983	BC858B
7521	4822 130 41344	BC337-40
7531	4822 209 10263	TC4052BP
7607	4822 130 61207	BC848
7608	4822 130 41715	BC328-40
7609	4822 130 61207	BC848
7623	5322 130 42136	BC848C
7635	5322 209 10421	TC4094BP
7750	4822 209 61026	TDA8415/V1
7760	4822 209 63106	TDA3857/V2
7770	4822 209 73558	TA8662N
7771	5322 130 41982	BC848B
7772	5322 130 41983	BC858B
7800	4822 209 61114	CF70123
7801	4822 209 63058	TC4001BFN ELP
7810	4822 209 72545	SAA7220P/C
7820	4822 209 73236	TDA1543/N2
7821	5322 209 70694	TL072CP-00
7830	5322 209 10576	TC4053BP
7831	5322 130 41982	BC848B
7832	5322 130 41982	BC848B
7860	4822 130 41344	BC337

Operating panel JDC7

MISCELLANEOUS

0011	4822 267 40624	SOCKET 5-FOLD
0012	4822 267 40697	SOCKET 6-FOLD
0013	4822 265 40475	SOCKET 8-FOLD
0014	4822 265 40721	SOCKET 10-FOLD
0015	4822 267 50777	SOCKET 16-FOLD
0016	4822 267 31253	PHONE-JACK
0017	4822 256 91708	DISPLAY HOLDER
0018	4822 276 11349	TIP-SWITCH
0019	4822 255 41191	LED-HOLDER
0021	4822 256 91707	IR-SOCKET

CRYSTALS

1002	4822 242 72574	4,19 MHz

CAPACITORS

2011	4822 121 51387	10 nF	16V
2012	4822 124 41518	470 µF	16V
2020	4822 124 41518	470 µF	16V
2021	4822 121 51298	1.5 nF	100V
2022	4822 121 51298	1.5 nF	100V
2031	4822 121 51387	10 nF	16V
2070	4822 122 33197	1 nF	50V
2071	4822 122 33197	1 nF	50V

RESISTORS

3005	4822 116 52283	4.7 kΩ
3020	4822 116 52182	15 Ω
3021	4822 116 52182	15 Ω
3022	4822 050 22004	300 kΩ
3023	4822 050 22004	300 kΩ
3026	4822 050 11003	10 kΩ
3027	4822 050 11003	10 kΩ
3028	4822 116 52233	10 kΩ
3029	4822 116 52233	10 kΩ
3030	4822 116 52257	22 kΩ
3031	4822 116 52283	4.7 kΩ
3032	4822 116 52283	4.7 kΩ
3033	4822 116 52233	10 kΩ
3040	4822 116 52233	10 kΩ
3041	4822 116 52233	10 kΩ
3042	4822 116 52233	10 kΩ
3043	4822 116 52233	10 kΩ
3044	4822 116 52256	2.2 kΩ
3045	4822 116 52256	2.2 kΩ
3046	4822 116 52256	2.2 kΩ
3047	4822 116 52256	2.2 kΩ
3050	4822 116 52283	4.7 kΩ
3051	4822 116 52175	100 Ω
3052	4822 116 52175	100 Ω
3060	4822 101 21138	ROTARY POT 10 kΩ
3061	4822 116 52233	10 kΩ
3066	4822 116 52257	22 kΩ
3067	4822 116 52257	22 kΩ
3068	4822 105 11064	SLIDE POT
3070	4822 101 21137	ROTARY POT 5 kΩ
3081	4822 116 52176	10 Ω
3082	4822 116 52283	4.7 kΩ
3083	4822 116 52176	10 Ω
3084	4822 116 52283	4.7 kΩ
3090	4822 100 11092	POT 4.7 kΩ
3091	4822 116 52257	22 kΩ
3092	4822 100 11092	POT 4.7 kΩ
3093	4822 116 52257	22 kΩ
3094	4822 116 52263	2.7 kΩ
3095	4822 116 52263	2.7 kΩ
3099	4822 116 52283	4.7 kΩ
3136	4822 116 52204	1 kΩ
3137	4822 116 52204	1 kΩ
3138	4822 116 52204	1 kΩ
3139	4822 116 52204	1 kΩ
3140	4822 116 52204	1 kΩ
3141	4822 116 52204	1 kΩ
3142	4822 116 52204	1 kΩ
3143	4822 116 52204	1 kΩ
3144	4822 116 52204	1 kΩ
3145	4822 116 52204	1 kΩ
3146	4822 116 52204	1 kΩ
3147	4822 116 52204	1 kΩ
3735	4822 116 52211	150 Ω

COILS

5010	4822 157 52286
5070	4822 157 52265
5071	4822 157 53937
5072	4822 157 52265

DIODES

6020	4822 130 81268	SD101A
6036	4822 130 30621	1N4148
6037	4822 130 30621	1N4148
6038	4822 130 30621	1N4148
6039	4822 130 30621	1N4148
6040	4822 130 30621	1N4148
6041	4822 130 30621	1N4148
6042	4822 130 30621	1N4148
6043	4822 130 30621	1N4148
6044	4822 130 30621	1N4148
6045	4822 130 30621	1N4148
6046	4822 130 30621	1N4148
6047	4822 130 30621	1N4148
6050	4822 130 34233	BZX55-C5V1
6072	4822 130 34278	BZX55-C6V8
6735	4822 130 32924	LED TLHG4601

TRANSISTORS & IC's

7030	4822 130 44197	BC558B
7101	4822 209 63048	TMP47C670 JUDP1-1
7120	4822 209 80797	LM393N
7121	4822 214 33109	IR-RECEIVER PAS-C0624
7140	4822 130 90911	DISPLAY 13-MT-28GBK

Operating panel JDCO, JDC5

MISCELLANEOUS

10	4822 267 31042	
11	4822 255 40916	
12	4822 276 11349	
13	4822 265 40721	10 PIN
14	4822 265 40475	8-FOLD
15	4822 267 40697	5-FOLD

CRYSTALS

1002	4822 242 72207	4,19 Mhz

CAPACITORS

2004	4822 122 33069	33 pF	50V
2005	4822 122 33069	33 pF	50V
2011	4822 122 10177	10 nF	25V
2012	4822 124 41518	470 µF	16V
2020	4822 124 41518	470 µF	16V
2021	4822 121 51298	1.5 nF	
2022	4822 121 51298	1.5 nF	
2031	4822 122 10177	10 nF	25V
2070	4822 122 33197	1 nF	50V
2071	4822 122 33197	1 nF	50V

RESISTORS

3001	4822 116 80175	4.7 kΩ
3002	4822 050 24702	4.7 kΩ
3003	4822 116 53109	1.8 kΩ
3020	4822 116 52182	15 Ω
3021	4822 116 52182	15 Ω
3022	4822 050 22004	200 kΩ
3023	4822 050 22004	200 kΩ
3026	4822 050 11003	10 kΩ
3027	4822 050 11003	10 kΩ
3028	4822 116 80173	10 kΩ
3029	4822 116 80173	10 kΩ
3030	4822 116 52257	22 kΩ
3031	4822 116 80173	10 kΩ
3032	4822 116 80173	10 kΩ
3033	4822 116 80173	10 kΩ
3040	4822 116 80175	4.7 kΩ
3041	4822 116 80175	4.7 kΩ
3042	4822 116 80175	4.7 kΩ
3043	4822 116 80175	4.7 kΩ
3050	4822 116 80175	4.7 kΩ
3051	4822 116 52175	100 Ω
3052	4822 116 52175	100 Ω
3061	4822 116 80173	10 kΩ
3066	4822 116 52257	22 kΩ
3067	4822 116 52257	22 kΩ
3068	4822 105 11025	SLIDE POT
3070	4822 103 90072	ROTARY POT
3083	4822 116 52176	10 Ω
3084	4822 116 52176	10 Ω
3085	4822 116 80175	4.7 kΩ
3086	4822 116 80175	4.7 kΩ
3090	4822 100 11092	4.7kΩ
3091	4822 116 52257	22 kΩ
3092	4822 100 11092	4.7 kΩ
3093	4822 116 52257	22 kΩ
3094	4822 116 52263	2.7 kΩ
3095	4822 116 52263	2.7 kΩ

COILS

5010	4822 157 52286
5070	4822 157 52265
5071	4822 157 53937
5072	4822 157 52265

DIODES

6020	4822 130 81268	SD101A
6040	4822 130 30621	1N4148
6041	4822 130 30621	1N4148
6042	4822 130 30621	1N4148
6043	4822 130 30621	1N4148
6044	4822 130 30621	1N4148
6045	4822 130 30621	1N4148
6046	4822 130 30621	1N4148
6050	4822 130 34233	BZX79-B5V1
6072	4822 130 34278	BZX79-B6V8

TRANSISTORS & IC's

7030	4822 130 40937	BC548B
7101	4822 209 63048	TMP47C670 JUDF
7120	4822 209 80797	LM393N
7121	4822 218 10216	IR-RECEIVER
7121	4822 214 33099	IR-RECEIVER (only for VR502)
7140	4822 130 90911	13-MT-28GBK

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Control panel OSD JCOOSD

CONNECTORS

0007	4822 267 50621	SOCKET 7 PIN
0008	4822 267 50721	SOCKET 9-PIN
0009	4822 267 50722	SOCKET 10-PIN
0010	4822 265 40722	SOCKET 11-PIN

MISCELLANEOUS

1300	4822 242 72965	17,734476 MHz
1401	4822 242 70938	32,768 kHz
1402	4822 242 71222	12 MHz
1989	4822 138 10419	BATTERY 60 MA

CAPACITORS

2200	4822 124 42097	22 µF	16 V(only for TPC)
2201	4822 124 41516	47 µF	16 V(only for TPC)
2202	4822 124 41521	10 µF	25 V(only for TPC)
2203	4822 124 32893	100 µF	(only for TPC)
2301	4822 124 22799	1 µF	63 V
2302	4822 122 31961	68 pF	63 V
2304	4822 122 31797	22 nF	63 V
2305	4822 122 31947	100 nF	
2306	4822 124 41516	47 µF	16 V
2307	4822 122 31947	100 nF	
2308	4822 122 31797	22 nF	63 V
2309	4822 124 22657	100 µF	10 V
2310	4822 122 31947	100 nF	
2311	4822 125 50394	4,5 pF-20 pF	
2312	4822 122 32444	33 pF	
2313	4822 125 50394	4.2-20 pF	
2314	4822 122 31971	10 pF	50 V
2315	4822 122 31772	47 pF	50 V
2316	4822 122 31797	22 nF	63 V
2317	4822 122 31797	22 nF	63 V
2403	4822 125 50394	4,2-20 pF	
2404	4822 122 31797	22 nF	63 V
2405	4822 122 31947	100 nF	
2406	4822 122 31947	100 nF	
2409	4822 124 41516	47 µF	16 V
2410	4822 122 32482	22 pF	63 V
2411	4822 122 32482	22 pF	63 V
2412	4822 122 31797	22 nF	63 V
2413	4822 122 31797	22 nF	63 V

RESISTORS

3200	4822 051 20222	2.2 kΩ(only for TPC)
3201	4822 116 52217	270 Ω(only for TPC)
3202	4822 116 52211	150 Ω(only for TPC)
3203	4822 116 52222	390 Ω(only for TPC)
3204	4822 051 10223	22 kΩ(only for TPC)
3205	4822 051 10563	56 kΩ(only for TPC)
3300	4822 051 10223	22 kΩ
3301	4822 051 10682	6.8 kΩ
3302	4822 051 10682	6.8 kΩ
3303	4822 051 10472	4.7 kΩ
3305	4822 051 10689	68 Ω
3306	4822 051 10102	1 kΩ
3307	4822 051 10473	47 kΩ
3308	4822 051 10271	270 Ω
3309	4822 116 52256	2.2 kΩ
3311	4822 116 52199	68 Ω
3312	4822 051 10102	1 kΩ
3313	4822 051 10182	1.8 kΩ
3314	4822 051 10271	270 Ω
3315	4822 100 11417	2.2 kΩ
3316	4822 051 10473	47 kΩ
3317	4822 051 10821	820 Ω
3318	4822 051 10109	10 Ω
3319	4822 051 10331	330 Ω
3320	4822 051 20222	2.2 kΩ
3321	4822 051 10221	220 Ω
3322	4822 051 10472	4.7 kΩ
3323	4822 051 20222	2.2 kΩ
3324	4822 051 10472	4.7 kΩ
3330	4822 051 10103	10 kΩ
3331	4822 051 10273	27 kΩ
3332	4822 051 10759	75 Ω
3401	4822 051 10223	22 kΩ
3402	4822 051 10472	4.7 kΩ
3403	4822 051 10101	100 Ω
3404	4822 116 52175	100 Ω
3405	4822 051 10103	10 kΩ
3406	4822 116 52231	820 Ω
3407	4822 051 10103	10 kΩ
3408	4822 051 10103	10 kΩ
3409	4822 051 10471	470 Ω
3410	4822 051 10471	470 Ω
3411	4822 051 10472	4.7 kΩ
3412	4822 051 10472	4.7 kΩ
3413	4822 116 52233	10 kΩ
3800	4822 051 10008	0 Ω
3801	4822 051 10008	0 Ω
3803	4822 051 10008	0 Ω
3804	4822 051 10008	0 Ω
3805	4822 051 10008	0 Ω(only for TPC)
3806	4822 051 10008	0 Ω
3807	4822 051 10008	0 Ω
3808	4822 051 10008	0 Ω
3810	4822 051 10008	0 Ω
3811	4822 051 10008	0 Ω
3812	4822 051 10008	0 Ω
3815	4822 051 10008	0 Ω
3816	4822 051 10008	0 Ω(only for TPC)
3818	4822 051 10008	0 Ω(only for TPC)

COILS

5300	4822 157 52286
5301	4822 157 60501
5750	4822 157 50961
5770	4822 157 50961

DIODES

6300	4822 130 30621	1N4148
6301	4822 130 30621	1N4148
6302	4822 130 30621	1N4148
6303	4822 130 30621	1N4148
6401	4822 130 30621	1N4148

TRANSISTORS & IC's

7200	5322 209 10576	IC 4053BP(only for TPC)
7300	5322 130 41982	BC848B
7301	5322 130 41982	BC848B
7302	5322 130 41982	BC848B
7303	5322 130 41982	BC848B
7304	5322 130 41983	BC858B
7305	5322 130 41982	BC848B
7306	5322 130 44336	BSV52
7308	5322 130 41983	BC858B

Control panel OSD JCOOSD

7350	4822 209 61821	D6450C/G
7401	5322 130 41983	BC858B
7450	5322 209 11318	P8032
7451	4822 209 63057	EPROM JUCO1-1P (only for OSD)
7451	4822 209 63047	EPROM JUCT1-1P (only for TPC)
7452	4822 209 61647	CD74HCT573E
7453	4822 209 73197	PCF8583P

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CONNECTORS

0007	4822 267 50621	SOCKET 7 PIN
0008	4822 267 50721	SOCKET 9-PIN
0009	4822 267 50722	SOCKET 10-PIN
0010	4822 265 40722	SOCKET 11-PIN
0011	4822 255 41187	SOCKET 28-PIN

MISCELLANEOUS

1401	4822 242 72892	32,768 kHz
1752	4822 242 71222	12 MHz
1800	4822 242 72367	13,875 MHz
1900	4822 320 40186	LC-DELAY LINE
1989	4822 138 10419	BATTERY V60R 60 MA
1990	4822 138 10419	BATTERY V60R 60 MA

CAPACITORS

2301	4822 122 31797	22 nF	
2310	4822 122 31947	100 nF	
2401	4822 125 50394	4,2-20 pF	
2402	4822 122 31797	22 nF	
2403	4822 122 31774	56 pF	
2404	4822 122 32442	10 nF	
2405	4822 122 31947	100 nF	
2406	4822 122 31947	100 nF	
2408	4822 122 31947	100 nF	
2411	4822 124 41869	4.7 µF	25 V
2412	4822 122 32442	10 nF	
2413	5322 122 33446	3.3 nF	
2414	4822 122 32542	47 nF	
2415	4822 124 41869	4.7 µF	25 V
2416	4822 124 41875	100 µF	6,3 V
2417	4822 124 41869	4.7 µF	25 V
2418	4822 122 31947	100 nF	
2419	4822 124 42092	1 µF	50 V
2601	4822 121 42781	470 nF	50 V
2602	4822 121 42781	470 nF	50 V
2603	4822 122 32927	220 nF	5 V
2604	4822 122 31961	68 pF	
2605	4822 122 31774	56 pF	
2751	4822 122 31797	22 nF	
2752	4822 122 32482	22 pF	
2753	4822 122 32482	22 pF	
2754	4822 124 41521	10 µF	25 V
2755	4822 124 41516	47 µF	16 V
2757	4822 124 22714	220 µF	25 V
2759	4822 122 32442	10 nF	
2762	4822 122 32504	15 pF	
2763	5322 122 31647	1 nF	
2764	4822 122 31727	470 nF	
2765	4822 122 31797	22 nF	
2766	4822 122 32142	270 pF	
2767	4822 122 31765	100 pF	
2768	4822 122 31965	220 pF	
2771	4822 122 31773	560 pF	
2773	4822 124 41516	47 µF	16 V
2774	4822 124 41868	2.2 µF	50 V
2775	4822 124 41868	2.2 µF	50 V
2776	4822 124 41868	2.2 µF	50 V
2780	4822 124 41516	47 µF	16 V
2781	4822 122 32542	47 nF	
2789	4822 124 22425	2.2 µF	5
2792	4822 122 32542	47 nF	
2799	4822 122 32891	68 nF	
2800	4822 122 32504	15 pF	

0 V

Control panel VPT JCOVPT

2802	4822 122 31825	27 pF	
2803	4822 122 31947	100 nF	
2847	4822 124 41521	10 µF	25 V
2851	4822 122 32442	10 nF	
2852	4822 122 32442	10 nF	
2853	4822 122 31947	100 nF	
2857	5322 122 31647	1 nF	
2858	4822 122 31947	100 nF	
2859	4822 122 31766	0 F	
2860	4822 122 32442	10 nF	
2861	5322 122 31647	1 nF	
2862	4822 122 32442	10 nF	
2863	4822 122 31947	100 nF	
2864	4822 122 31947	100 nF	
2865	4822 122 32442	10 nF	
2870	4822 122 31797	22 nF	
2872	4822 121 42781	470 nF	50 V

RESISTORS

3000	4822 051 10008	0 Ω
3001	4822 051 10008	0 Ω
3010	4822 051 10008	0 Ω
3021	4822 051 10008	0 Ω
3021	4822 051 10008	0 Ω
3024	4822 051 10008	0 Ω
3032	4822 051 10008	0 Ω
3042	4822 051 10008	0 Ω
3045	4822 051 10008	0 Ω
3046	4822 051 10008	0 Ω
3047	4822 051 10008	0 Ω
3048	4822 051 10008	0 Ω
3049	4822 051 10008	0 Ω
3050	4822 051 10008	0 Ω
3051	4822 051 10008	0 Ω
3052	4822 051 10008	0 Ω
3053	4822 051 10008	0 Ω
3054	4822 051 10008	0 Ω
3055	4822 051 10008	0 Ω
3056	4822 051 10008	0 Ω
3058	4822 051 10008	0 Ω
3059	4822 051 10008	0 Ω
3303	4822 051 10182	1.8 kΩ
3304	4822 051 10822	8.2 kΩ
3305	4822 051 10271	270 Ω
3306	4822 051 10681	680 Ω
3307	4822 051 10103	10 kΩ
3308	4822 051 10471	470 Ω
3309	4822 051 10471	470 Ω
3400	4822 116 52233	10 kΩ
3401	4822 051 10103	10 kΩ
3402	4822 051 10472	4.7 kΩ
3404	4822 051 10103	10 kΩ
3405	4822 051 10103	10 kΩ
3406	4822 101 10855	22 kΩ
3407	4822 051 10829	82 Ω
3430	4822 051 10223	22 kΩ
3431	4822 051 10472	4.7 kΩ
3432	4822 051 10333	33 kΩ
3433	4822 051 10103	10 kΩ
3434	4822 051 10101	100 Ω
3435	4822 051 10101	100 Ω
3436	4822 051 10182	1.8 kΩ
3501	4822 116 52233	10 kΩ
3502	4822 116 52233	10 kΩ
3503	4822 051 10472	4.7 kΩ
3504	4822 116 52228	680 Ω
3505	4822 051 10332	3.3 kΩ
3506	4822 051 10103	10 kΩ
3507	4822 051 10681	680 Ω
3508	4822 051 10103	10 kΩ
3509	4822 051 10822	8.2 kΩ
3510	4822 051 10331	330 Ω
3511	4822 051 10822	8.2 kΩ
3512	4822 051 20222	2.2 kΩ
3513	4822 051 10224	220 kΩ
3514	4822 051 10473	47 kΩ
3601	4822 051 10223	22 kΩ
3605	4822 051 10102	1 kΩ
3606	4822 051 10473	47 kΩ
3607	4822 051 10103	10 kΩ
3608	4822 051 10223	22 kΩ
3762	4822 051 10221	220 Ω
3763	4822 051 10221	220 Ω
3764	4822 051 10472	4.7 kΩ
3765	4822 051 10472	4.7 kΩ
3771	4822 051 10102	1 kΩ
3773	4822 051 10821	820 Ω
3777	4822 051 10431	430 Ω
3778	4822 051 10431	430 Ω
3779	4822 051 10431	430 Ω
3780	4822 051 10689	68 Ω
3782	4822 051 10472	4.7 kΩ
3783	4822 051 10472	4.7 kΩ
3784	4822 051 10472	4.7 kΩ
3789	4822 051 20222	2.2 kΩ
3790	4822 051 10689	68 Ω
3800	4822 051 10563	56 kΩ
3804	4822 051 10472	4.7 kΩ
3850	4822 051 10103	10 kΩ
3851	4822 051 10102	1 kΩ
3853	4822 051 10102	1 kΩ
3854	4822 116 52204	1 kΩ
3856	4822 050 15603	56 kΩ
3857	4822 051 10681	680 Ω
3858	4822 116 52204	1 kΩ
3859	4822 051 10151	150 Ω
3860	4822 116 52182	15 Ω
3862	4822 051 10104	100 kΩ
3864	4822 051 10102	1 kΩ
3871	4822 051 10681	680 Ω
3872	4822 051 10271	270 Ω
3875	4822 051 10103	10 kΩ
3876	4822 116 52233	10 kΩ

COILS

5400	4822 157 52265
5571	4822 157 52825
5600	4822 157 52286
5601	4822 157 52286
5700	4822 157 52265
5750	4822 157 50961
5770	4822 157 50961
5800	4822 157 52224
5801	4822 157 51999

DIODES

6301	4822 130 33004	BZX84-B5V6
6501	4822 130 30621	1N4148
6503	4822 130 30621	1N4148
6508	4822 130 30621	1N4148

Control panel VPT JCOVPT

TRANSISTORS & IC's

7201	5322 130 41982	BC848B
7202	5322 130 41982	BC848B
7203	5322 130 41982	BC848B
7302	5322 130 41982	BC848B
7303	5322 130 41982	BC848B
7400	5322 130 41982	BC848B
7401	4822 130 60383	BF824
7403	4822 130 61799	DTA144TK
7410	5322 130 41983	BC858B
7453	4822 209 73197	PCF8583P
7501	5322 130 41982	BC848B
7502	5322 130 41982	BC848B
7503	5322 130 41982	BC848B
7504	5322 130 44336	BSV52
7601	4822 130 61798	DTC143TK
7602	4822 130 62492	DTC144TK
7603	5322 130 41983	BC858B
7604	4822 130 61798	DTC143TK
7605	4822 130 61799	DTA144TK
7750	5322 209 11318	P8032
7751	4822 209 63082	EPROM JUCV1-1P
7752	4822 209 61647	CD74HCT573E
7753	4822 209 62506	TC5564APL-15
7760	4822 209 73879	SAA5243P/E-M2
7770	4822 209 61805	HY6264P-15
7780	4822 209 72972	SAA5231/V6
7785	4822 209 61806	AN3916
7790	4822 209 71415	MC1377P
7795	5322 209 10576	TC4053BP
7796	5322 209 10576	TC4053BP
7801	5322 130 41983	BC858B
7802	5322 130 44336	BSV52
7803	5322 130 41982	BC848B
7804	5322 130 41982	BC848B